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December 12, 2008

Mr. Kenneth Bardo - LU-9J
U.S. EPA Region V
Corrective Action Section
77 West Jackson Boulevard
Chicago, IL 60604-3507

Re: Long-Term Monitoring Program
3rd Quarter 2008 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

Dear Mr. Bardo:

Enclosed please find the Long-Term Monitoring Program 3rd Quarter 2008 Data Report for Solutia Inc.'s W. G. Krummrich Plant, Sauget, IL. This is the first such report, this program having replaced the earlier Plume Stability Monitoring Program.

If you have any questions or comments regarding this report, please contact me at (314) 674-3312 or gmrina@solutia.com

Sincerely,

Gerald M. Rinaldi
Manager, Remediation Services

Enclosure

cc: Distribution List

DISTRIBUTION LIST

Long-Term Monitoring Program
3rd Quarter 2008 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

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** Please group all CDs going to 500 Monsanto Avenue to Richard Williams' attention.

3RD QUARTER 2008
DATA REPORT

LONG-TERM MONITORING PROGRAM

SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

Prepared for

Solutia Inc.
575 Maryville Centre Drive
St. Louis, Missouri 63141

December 2008

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1.0 INTRODUCTION

This report presents the results of the 3rd Quarter 2008 (3Q08) sampling event performed at the Solutia Inc. (Solutia) W.G. Krummrich (WGK) Facility located in Sauget, Illinois (Site). This sampling event was the first event conducted in accordance with the monitoring activities as outlined in the Long-Term Monitoring Program (LTMP) Work Plan (Solutia, 2008). Prior sampling events were conducted between 1Q06 and 2Q08 in accordance with the Plume Stability Monitoring Plan (PSMP) (Solutia 2005). The Site location is presented in **Figure 1**.

The long-term groundwater monitoring program is designed to be capable of evaluating the effectiveness of monitored natural attenuation including: 1) a clear and meaningful trend of decreasing contaminant mass; 2) data that indirectly demonstrates the types and rates of natural attenuation processes active at the site; and 3) data that directly demonstrates the occurrence of biodegradation processes at the site. The surface water and sediment monitoring program is capable of assessing the impact of contaminated groundwater discharge to the Mississippi River north of the Sauget Area 2 Groundwater Migration Control System (GMCS).

Groundwater Sampling Location and Frequency - As specified in the LTMP Work Plan, beginning 3Q08, quarterly sampling will be performed for eight quarters in five monitoring wells downgradient of the Former Chlorobenzene Process Area and five monitoring wells downgradient of the Former Benzene Storage Area to assess attenuation processes in the American Bottoms aquifer as impacted groundwater from these source areas migrates toward and discharges to the Mississippi River (**Figure 2**). A total of ten wells from the former Plume Stability Monitoring Program are used for the groundwater monitoring component of the Long-Term Monitoring Program; however, monitoring well numbers were changed as shown below:

Summary of Long-Term Monitoring Program Groundwater Monitoring Wells

Source Area	Plume Stability Monitoring Well	Long-Term Groundwater Monitoring Well	
Chlorobenzene Process Area	PS MW-3	CPAMW-1D	Source Area Well
North Tank Farm	PS MW-4	CPAMW-2D	Source Area Well
	PS MW-7	CPAMW-3D	Downgradient Well
	PS MW-11	CPAMW-4D	Downgradient Well
	PS MW-14D	CPAMW-5D	Downgradient Well
Benzene Storage Area	PS MW-5	BSAMW-1S	Source Area Well
	PS MW-8	BSAMW-2D	Downgradient Well
	PS MW-12	BSAMW-3D	Downgradient Well
	PS MW-16D	BSAMW-4D	Downgradient Well
	PS MW-15D	BSAMW-5D	Downgradient Well

Notes:
1) MW = Monitoring Well
2) PS = Plume Stability
3) CPA = Chlorobenzene Process Area
4) BSA = Benzene Storage Area

Monitoring wells CPAMW-1D, 2D, 3D, 4D and 5D are located within the range of limiting flow lines downgradient of the Former Chlorobenzene Process Area (**Figure 2**). The North Tank Farm, Former Steamer Overhead Tank and "Little Mo" (a former benzene storage tank), which are known as the (North Tank Farm) or potential (Former Steamer Overhead Tank and "Little Mo") benzene and chlorobenzene

source areas, are also located within the limiting flow lines for the Chlorobenzene Process Area. Monitoring wells BSAMW-1S, 2D, 3D, 4D and 5D are located within the limiting flow lines downgradient of the Former Benzene Storage Area (**Figure 2**).

Quarterly sampling under the Long-Term Monitoring Program commenced 3Q08 and will continue for a total of eight quarters. At the end of eight quarters, groundwater quality and attenuation process data will be evaluated to determine if longer sampling intervals (e.g., semiannual or annual) are appropriate.

Groundwater Sampling Parameters - During the 3Q08 groundwater sampling event, groundwater samples were analyzed for benzene, monochlorobenzene, 1,2-dichlorbenzene, 1,3-dichlorobenzene, and 1,4-dichlorbenzene using USEPA Method 8260B to provide the data needed to demonstrate a clear and meaningful trend of decreasing contaminant mass and/or concentrations over time at the monitoring or sampling points. In addition to these parameters and as directed by USEPA via comments on the Long-Term Monitoring Plan, 4-chloroaniline, 2-chlorophenol, 1,2,4-trichlorobenzene, and 1,4-dioxane were added to the groundwater monitoring parameter list on a semi-annual basis as follows:

- 4-Chloroaniline: CPAMW-3D, CPAMW-4D, and CPAMW-5D *Note: 4-Chloroaniline was analyzed from all wells during 3Q08, but will be reduced to the three wells presented here in subsequent events.*
- 2-Chlorophenol: All Wells
- 1, 2, 4-Trichlorobenzene: All Wells *Note: 1, 2, 4-Trichlorobenzene was not analyzed for during 3Q08, but will be included in subsequent semi-annual events.*
- 1,4-Dioxane: BSAMW-2D, BSAMW-3D, BSAMW-4D, and BSAMW-5D

Samples for monitored natural attenuation (MNA) were collected from all ten long-term monitoring program wells. The types of natural attenuation processes active at the site are determined by the following key geochemical parameters:

Electron Donors:	**Total Organic Carbon** **Dissolved Organic Carbon**
Electron Acceptors:	**Iron (Total and Dissolved)** **Manganese (Total and Dissolved)** **Nitrate** **Sulfate**
Biodegradation Byproducts:	**Carbon Dioxide** **Methane** **Chloride**
Biodegradation Indicators:	**Alkalinity**

Direct demonstration of the occurrence of biodegradation processes is done quarterly using Microbial Insights (www.microbe.com) Bio-Trap® Samplers for Phospholipid Fatty Acid Analyses and Stable Isotope Probes (SIPs) for benzene or chlorobenzene in select wells.

Surface Water and Sediment Sampling - Solutia has implemented the long-term surface water and sediment monitoring program for the Solutia W.G. Krummrich Facility. The objective of the surface water and sediment monitoring program is to assess the impact of contaminated groundwater discharging to the Mississippi River north of the Groundwater Migration Control System (GMCS). Surface water and

sediment sampling is conducted twice per year, with one event during summer low flow conditions and another event during winter low flow conditions.

2.0 FIELD PROCEDURES

URS Corporation (URS) conducted the 3Q08 field activities from August 18 through 26, 2008.

Field sampling activities were conducted in accordance with the procedures outlined in the LTMP Work Plan including the collection of appropriate quality assurance and quality control (QA/QC) samples. The following section summarizes the field investigative procedures.

Groundwater Level Measurements - Prior to sampling, URS gauged groundwater and non-aqueous phase liquid (NAPL) (if present) depth to the 1/100th of a foot using an electronic interface probe. Groundwater depth measurements were collected from the available existing wells (e.g., GM-, K- , PSMW- and PMA-series) and piezometers clusters specified in the LTMP Work Plan **(Figure 3**). Well gauging information for the 3Q08 sampling event is presented in **Table 1** and a potentiometric surface map is presented in **Figure 3**. This map is based on water level data from wells screened in the Middle Hydrogeologic Unit (MHU) and the Deep Hydrogeologic Unit (DHU), because these hydrogeologic units are the primary migration pathway for constituents present in groundwater at the WGK Facility.

Groundwater Quality Sampling - Low-flow sampling techniques were used for groundwater sample collection. At each monitoring well, a submersible pump attached to polyethylene tubing was slowly lowered down the well and secured so that the pump intake was set near the middle or slightly above the middle of the screened interval. The other end of the polyethylene tubing was connected to a flow-through cell which discharged into a 5-gallon plastic bucket. Pump flow rates were set at approximately 200 ml/min during purging. Water level measurements were initially recorded approximately every two minutes to assess whether significant drawdown was occurring. If significant drawdown occurred, the flow rates were scaled back. Drawdown was monitored to ensure that it did not exceed 25% of the distance between the pump intake and the top of the screen (approximately 0.62 ft). Once the flow rate and drawdown were stable, field measurements were collected approximately every three to five minutes. Field measurements are presented on the groundwater purging and sampling forms, in **Appendix A.** Groundwater was considered stable when the following criteria were met over a minimum of three successive flow-through cell volumes:

- pH - ± 0.2 units
- Specific Conductance - ± 3%
- Dissolved Oxygen (DO) - ± 10% or ± 2 mg/L whichever is greater
- Oxidation-Reduction Potential (ORP) - ± 20 mV

Once stabilization was achieved, samples were collected at a maximum flow rate no higher than that at which stabilization occurred. Bottles were filled in a manner consistent with the work plan in the following order:

- Volatile Organic Compounds (VOCs)
- Gas Sensitive Parameters (e.g., methane, carbon dioxide)
- Semivolatile Organic Compounds (SVOCs)
- General Chemistry (i.e., alkalinity, chloride, iron (dissolved), iron (total), manganese (dissolved), manganese (total), nitrate, sulfate, dissolved organic carbon, & total organic carbon)
- Field Parameters (i.e., dissolved oxygen, ferrous iron, and oxidation-reduction potential).

Quality assurance/quality control (QA/QC) samples consisting of analytical duplicates (AD) and equipment blanks (EB) were collected at a rate of 10% and matrix spike/matrix spike duplicates (MS/MSD) were collected at a rate of 5%. In addition, trip blanks accompanied each shipment containing samples for VOC analysis.

Each investigative or QC sample was immediately labeled with the project name and number, sample identification number, samplers initials, sampling location, required analysis, date and time of sample collection, and preservative used, if applicable. Sample identification number consisted of the following nomenclature “AAAMW#-BBBB-CCC” where:

“AAA” denotes "Chlorobenzene Process Area (CPA)" or "Benzene Storage Area (BSA)"and "MW-#” denotes "Monitoring Well Number":

- **CPAMW # - Monitoring Well Purpose, Location and Number**
- **BSAMW # - Monitoring Well Purpose, Location and Number**

“BBBB” denotes

- **MMYY – Month and year of sampling quarter, e.g.: Third quarter (August), first year (2008), 0808**

“CCC” denotes QA/QC sample

- **EB- equipment blank**
- **AD- analytical duplicate**
- **MS or MSD – Matrix Spike or Matrix Spike Duplicate**

Field personnel also recorded the project identification and number, sample description/location, required analysis, date and time of sample collection, type and matrix of sample, number of sample containers, analysis requested/comments, and sampler signature/date/time, with permanent ink on the chain-of-custody (COC). COC forms are included in **Appendix B**.

Samples were placed on ice inside a cooler immediately following sampling. Sample containers were packed in such a way as to help prevent breakage. Samples were shipped in coolers, each containing ice to maintain inside temperature at approximately 4^{o}C. Sample coolers were sealed between the lid

and sides of the cooler with a custody seal prior to shipment. The samples were shipped to the TestAmerica facility in Savannah, Georgia by means of an overnight delivery service.

Field personnel and equipment were decontaminated according to procedures specified in the LTMP Work Plan to ensure the health and safety of those present, to maintain sample integrity, and to minimize the movement of contamination between the work area and off-site locations. Equipment used on-site was decontaminated prior to beginning work, between sampling locations and/or uses, and prior to demobilizing from the site. Non-disposable purging and sampling equipment was decontaminated between each sample acquisition by washing with an Alconox® or equivalent detergent wash, a potable water rinse, and a distilled water rinse. Personnel and small equipment decontamination was performed at the sample locations. Disposable sampling equipment, such as gloves were collected and bagged on a daily basis and managed in accordance with Solutia procedures. Purge water was containerized and handled per Solutia procedures.

Biodegradation Evaluation Sampling - Bio-Trap® samplers and Stable Isotope Probes (SIPs), provided by Microbial Insights, Inc. (Rockford, TN), were utilized in the LTMP to provide information regarding biodegradation potential of the Shallow Hydrogeologic Unit (SHU), the MHU and the DHU. Bio-Trap® samplers are passive sampling tools which, over time, collect microbes across a membrane that serves as the sampling matrix. SIPs are similar passive sampling tools that are analyzed to measure the degradation of a specific contaminant (i.e., benzene and chlorobenzene).

Between August 20 and August 26, 2008, URS field personnel deployed Bio-Trap® samplers for analysis of Phospholipid Fatty Acid (PLFA) in each of the ten wells of the LTMP. Additionally, to provide information specific to the biological degradation of benzene and monochlorobenzene, well BSAMW02D received a Benzene SIP, and well CPAMW03D received a monochlorobenzene SIP.

As the method of deployment, the Bio-Trap® samplers and SIPs were tied to nylon line attached to the well cap and lowered to the middle of the screen. On September 25, 2008, after the deployment period of 30 days had ended, the Bio-Trap® samplers and SIPs were retrieved from the wells. Upon retrieval, they were placed into ziploc bags, sealed, labeled with the proper well identification and put on ice in a sample cooler. A signed COC was also placed into the sample cooler prior to sealing of the cooler. The samples were sent to Microbial Insights, Inc. for analysis.

Surface Water and Sediment Monitoring - The surface water and sediment sampling was conducted coincident with the 3Q08 groundwater sampling event (on August 18, 2008). This coordination of surface water/sediment and groundwater sampling events was done to ensure that groundwater was discharging to the river at the time of sampling, and to assess the relationship between VOC concentrations in the river and in groundwater. Fluid levels in groundwater monitoring wells CPAMW-4D-395.83, BSAMW-3D-396.96, CPAMW-5D-389.61, BSAMW-5D-392.04 and BSAMW-4D-393.64 were gauged on the same day in which the surface water and sediment sampling occurred. The water levels in the wells (389.61-396.61) were higher than the Mississippi River (~386.8) confirming discharge to the river.

Surface water and sediment samples were collected at three locations, R2007-1 through R2007-3 (see **Figure 2**). The location coordinates for each of the three sample locations were preloaded into a Trimble

Global Positioning System (GPS) unit, and the URS field personnel used these waypoints to navigate to the sample locations. Sample location R2007-2 was offset approximately 140 feet west of the planned location. A coal offloading facility precludes accessibility to the planned R2007-2 location. The river bed is scoured in this vicinity; therefore, field personnel positioned the sampling boat at a position nearby the planned sample location, yet where the dredge was able to reach the river bed. The samples were analyzed for the following VOCs: benzene, chlorobenzene, 1, 2-dichlorobenzene, 1, 3-dichlorobenzene, 1, 4-dichlorobenzene and 1, 4-dioxane. The samples were analyzed for the following semivolatile organic compounds (SVOCs): 4-chloroaniline and 2-chlorophenol.

QA/QC and shipping procedures were similar to those described above.

In-situ water quality parameters (temperature, pH, dissolved oxygen and conductivity) were also recorded at each of the three sample locations. These parameters were measured with a Horiba Model U-22 at a depth of one foot below the water surface, and recorded on field data sheets (**Appendix C).**

Surface Water Sampling

Surface water samples were collected in a manner that prevented contamination from the sediments, minimized the potential for contamination by the sampling system, and provided a representative sample of the water column above the sediments. Potential contamination of surface water samples by sediments was minimized by collecting surface water samples prior to collecting sediment samples at each of the three locations.

Surface water samples were collected at the sediment-water interface (within one foot of the bottom) at the pre-designated sampling locations. Samples were collected with a peristaltic pump and weighted intake. New tubing was used at each sampling location. The tubing was clamped to the cable of the sediment sampler (ponar dredge) and lowered with the dredge to the bottom of the river. Unfiltered surface water samples were used for chemical analysis. The samples for VOC analysis were collected by directly filling 40-mL vials from the peristaltic pump tubing to minimize VOC loss and avoid preservative loss. Pump velocity was reduced during the VOC sampling to minimize volatilization. The samples for SVOC analysis were collected similarly into their respective containers.

Sediment Sampling

Sediment samples were collected with an 11.1 liter ponar grab sampler. The sampler was deployed from a davit along the side of the boat, and was raised and lowered with a winch. Prior to sampling at each location, the grab sampler and the other sampling devices (stainless steel bowl and spoon) were decontaminated with a distilled water and Alconox® wash, followed by a distilled water rinse. A single grab sample was sufficient to provide the needed sample quantity. Sediment samples were collected from the upper 2 inches (5-6 centimeters) of the river bed. Upon retrieval, the sediment sampler was opened and the sediment was transferred to the stainless steel bowl. The samples for VOC analysis were obtained using a 5 milliliter Terra Core

sampler, which was inserted into the sediment below the surface and removed with care to prevent VOC loss.

3.0 LABORATORY PROCEDURES

Samples were analyzed by TestAmerica for VOCs, SVOCs, and Monitored Natural Attenuation (MNA) parameters, using the following methodologies:

- VOCs, via USEPA SW-846 Method 8260B
- SVOCs, via Method 8270C
- MNA parameters consisting of alkalinity (USEPA Method 310.1), carbon dioxide (310.1), chloride (325.2), dissolved iron (6010B), total iron (6010B), dissolved manganese (6010B), total manganese (6010B), methane (RDK 175), nitrate (353.2), sulfate (375.4), dissolved organic carbon (415.1) and total organic carbon (TOC) (415.1).

Dichlorobenzenes were quantitated using Method 8260B because of potential volatilization losses associated with Method 8270C. Laboratory results were provided in electronic and hard copy formats.

4.0 QUALITY ASSURANCE

Analytical data were reviewed for quality and completeness, as described in the LTMP work plan. Data qualifiers were added, as appropriate, and are included on the data tables and the laboratory result pages. The Quality Assurance report is included as **Appendix D**. Laboratory result pages (i.e. Form 1's) along with data validation review sheets are included in **Appendix E**.

A total of 14 groundwater samples (10 investigative samples, 1 field duplicate, 1 MS/MSD pair and 1 equipment blank) were prepared and analyzed by TestAmerica for combinations of VOCs, SVOCs, dissolved gases, metals, and general chemistry. In addition, four trip blanks were included in the coolers that contained samples for VOC analysis and were analyzed for VOCs. The results for the various analyses were submitted as sample delivery groups (SDGs) KPS044 and KPS045. The samples contained in each SDG are listed below.

KPS044	**KPS045**
Trip Blank-01	Trip Blank-03
CPAMW03-0808	CPAMW05-0808
BSAMW02-0808	BSAMW01-0808
BSAMW05-0808	CPAMW01-0808
Trip Blank-02	CPAMW02-0808
	CPAMW02-0808-AD
	BSMW04-0808
	CPAMW04-0808
	BSAMW03-0808
	BSAMW03-0808-EB
	Trip Blank-04

A total of 13 samples (six investigative (three surface water and three sediment), two field duplicates, two MS/MSD pair and one equipment blank) were prepared and analyzed by TestAmerica for combinations of VOCs and SVOCs. In addition, one trip blank was included in the cooler that contained surface water samples for VOC analysis. The results for the various analyses were submitted as SDGs KRS003 and KRS004 (**Appendix E)**. The samples contained in each SDG are listed below.

KRS003	**KRS004**
R2007-1-0808	R2007-1-0808
R2007-3-0808	R2007-3-0808
R2007-3-0808-EB	R2007-2-0808
R2007-2-0808	R2007-3-0808-AD
R2007-3-0808-AD	
TB1	

Evaluation of the analytical data followed procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (USEPA, 1999), USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (USEPA, 2004), and the WGK Long Term Monitoring Plan (Solutia, 2008).

Based on the above mentioned criteria, the groundwater, surface water, and sediment results reported for the analyses performed were accepted for their intended use. Acceptable levels of accuracy and precision, based on MS/MSD, laboratory control sample (LCS), surrogate and field duplicate data were achieved for these SDGs to meet the project objectives. Completeness which is defined to be the percentage of analytical results which are judged to be valid, including estimated (**J/UJ**) data was 100 percent.

5.0 OBSERVATIONS

This section presents the results of the 3Q08 sampling. Seven constituents, benzene, chlorobenzene, 4-Chloroaniline, 2-Chlorophenol, 1,2-dichlorobenzene, 1,3-dichlorobenzene and 1,4-dichlorobenzene were analyzed in samples collected from the ten Long-Term Monitoring Program wells while one additional constituent 1,4-Dioxane was analyzed in selected wells during this sampling event. **Tables 2** and **3** present groundwater analytical detections and monitored natural attenuation results for the 3Q08 LTMP sampling event, respectively. Each of these constituents is discussed below for groundwater.

Benzene - During 3Q08 benzene was detected at levels above the laboratory reporting limit in nine of the ten wells sampled. Benzene concentrations in the samples ranged from 18 ug/L (BSAMW-5D) to 1,000,000 ug/L (BSAMW-1S) (**Figure 4**). Benzene was detected in the DHU downgradient of the Former Benzene and Chlorobenzene Storage Area at concentrations of 18,000 ug/L (BSAMW-2D) and 30 ug/L (BSAMW-3D) (located approximately 1,500 feet from BSAMW-2D). Benzene was detected in the DHU near the river north of the Sauget Area 2 Groundwater Migration Control System (SA2 GMCS) at a concentration of 48 ug/L (BSAMW-4D) and 18 ug/L (BSAMW-5D), respectively.

Benzene concentrations at the Former Chlorobenzene Process Area are 3,100 ug/L (CPAMW-1D) and 3,200/2,400 ug/L (CPAMW-2D and duplicate). Benzene was detected in the DHU downgradient of the Former Chlorobenzene Storage Area at concentrations of 25 ug/L (CPAMW-3D) and 610 ug/L (CPAMW-

4D) (located approximately 1,500 feet from CPAMW-3D). Benzene was not detected in the DHU near the river north of the Sauget Area 2 Groundwater Migration Control System (SA2 GMCS) in well CPAMW-5D.

Chlorobenzenes (Total) - During 3Q08 total chlorobenzenes (chlorobenzene, 1, 2-dichlorobenzene, 1, 3-dichlorobenzene, 1-4, dichlorobenzene) were detected at levels above the laboratory reporting limit in nine of the ten wells sampled. Total chlorobenzenes concentrations in the samples ranged from 309.1 ug/L (BSAMW-5D) to 50,400 ug/L (CPAMW-1D) (**Figure 4**). Similar concentrations (42,870/35,670 ug/L) were detected in CPAMW-2D and duplicate, located at the North tank farm. Total chlorobenzenes were detected in the DHU downgradient of the Former Chlorobenzene Storage Area at concentrations of 470.6 ug/L (CPAMW-3D) and 880.3 ug/L (CPAMW-4D) (located approximately 1,500 feet from CPAMW-3D). Total Chlorobenzenes were detected in the DHU near the river north of the Sauget Area 2 Groundwater Migration Control System (SA2 GMCS) at a concentration of 861.3 ug/L (CPAMW-5D).

Total chlorobenzene concentrations downgradient of the Former Benzene and Chlorobenzene Storage Area are 1,700 ug/L (BSAMW-2D) and 1,877 ug/L (BSAMW-3D) (located approximately 1,500 feet from BSAMW-2D). Total chlorobenzenes were detected in the DHU near the river north of the Sauget Area 2 Groundwater Migration Control System (SA2 GMCS) at a concentration of 2,662 ug/L (BSAMW-4D) and 309.1 ug/L (BSAMW-5D), respectively.

p-Chloroaniline - Groundwater samples to analyze for p-Chloroaniline (or 4-Chloroaniline) were inadvertently collected from all wells during 3Q08, but will only be sampled from CPAMW-3D, CPAMW-4D, and CPAMW-5D during subsequent events. p-Chloroaniline was only detected in two of the three above mentioned wells CPAMW-3D (95 ug/L) and CPAMW-4D (98 ug/L). p-Chloroaniline was not detected in the DHU near the river north of the Sauget Area 2 Groundwater Migration Control System (SA2 GMCS) in well CPAMW-5D.

2-Chlorophenol - During 3Q08, 2-Chlorophenol was detected in four of the ten LTMP wells at concentrations ranging from 10 ug/L (CPAMW-5D) to 28/33 ug/L (CPAMW-2D and duplicate), both located along the limiting flow lines from the Chlorobenzene Process Area. 2-Chlorophenol was detected in two additional wells at concentrations of 11 ug/L (BSAMW-3D) and 15 ug/L (BSAMW-4D).

1,4-Dioxane – Groundwater samples to analyze for 1,4-Dioxane were collected from four monitoring wells downgradient of the Former Benzene and Chlorobenzene Storage Area (BSAMW-2D, BSAMW-3D, BSAMW-4D, and BSAMW-5D). 1, 4-Dioxane was only detected in one of the four wells at a concentration of 33 ug/L (BSAMW-4D).

Figure 4 displays benzene and total chlorobenzenes results from 3Q08 sampling event. These constituents provide a good depiction of the areal extent of constituent migration from source areas at the WGK Facility.

Surface Water and Sediment Monitoring - Surface water and sediment samples were analyzed for benzene, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1, 4-dichlorobenzene and 1, 4-dioxane. The samples were also analyzed for the following semivolatile organic compounds (SVOCs): 4-chloroaniline and 2-chlorophenol. The results are summarized as follows**:**

- None of these constituents were detected in the surface water samples (reporting limit 1 ug/L).
- Chlorobenzene was detected in one sediment sample at an estimated concentration of 4.4/1.2 ug/L (R2007-3 and duplicate). All other constituents were non detect in the samples (variable reporting limits). Sample location R2007-3 is approximately 150 feet from the shoreline, and is downgradient from well BSAMW-5D.

These results indicate that constituents are attenuating prior to discharge to the river.

Monitored Natural Attenuation - The MNA results for this quarter are presented on **Table 3**. PLFA and SIP laboratory results are included in **Appendix G**. These data will be compared to future quarterly sampling data and for evaluation purposes in the first annual natural attenuation evaluation report submitted following 2Q09 sampling (3Q08, 4Q08, 1Q09, and 2Q09).

6.0 REFERENCES

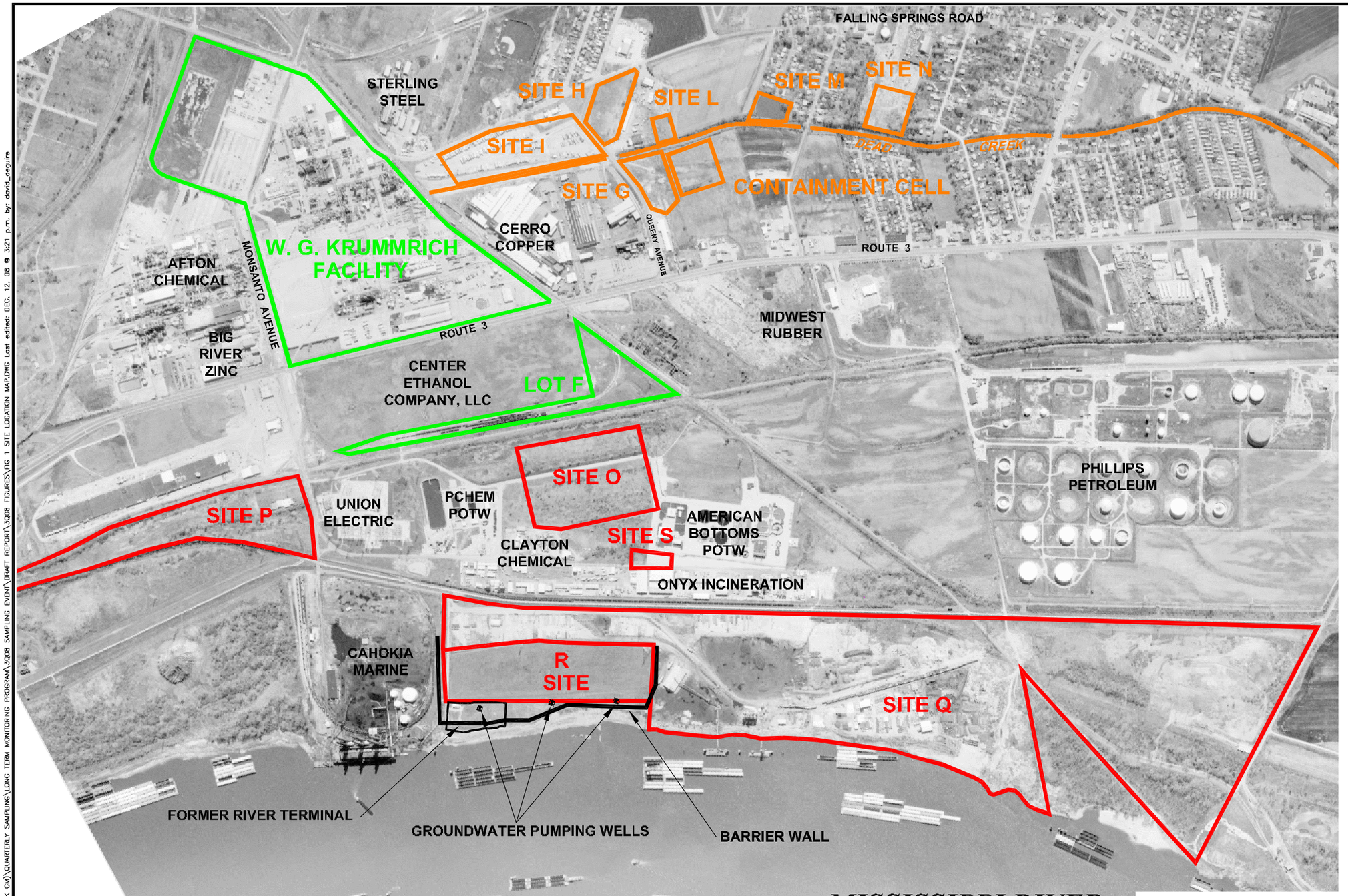
Solutia Inc, 2005. Plume Stability Plan, Solutia, Inc., W.G. Krummrich Facility, Sauget, Illinois, Prepared by URS Corporation, September 2005.

Solutia Inc, 2008. Long Term Monitoring Program, Solutia, Inc., W.G. Krummrich Facility, Sauget, Illinois, April 2008.

USEPA, 1999. Contract Laboratory Program National Functional Guidelines for Organic Data Review.

USEPA, 2004. Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.

Figures



LEGEND

- W.G. KRUMMRICH FACILITY
- SAUGET AREA #1
- SAUGET AREA #2

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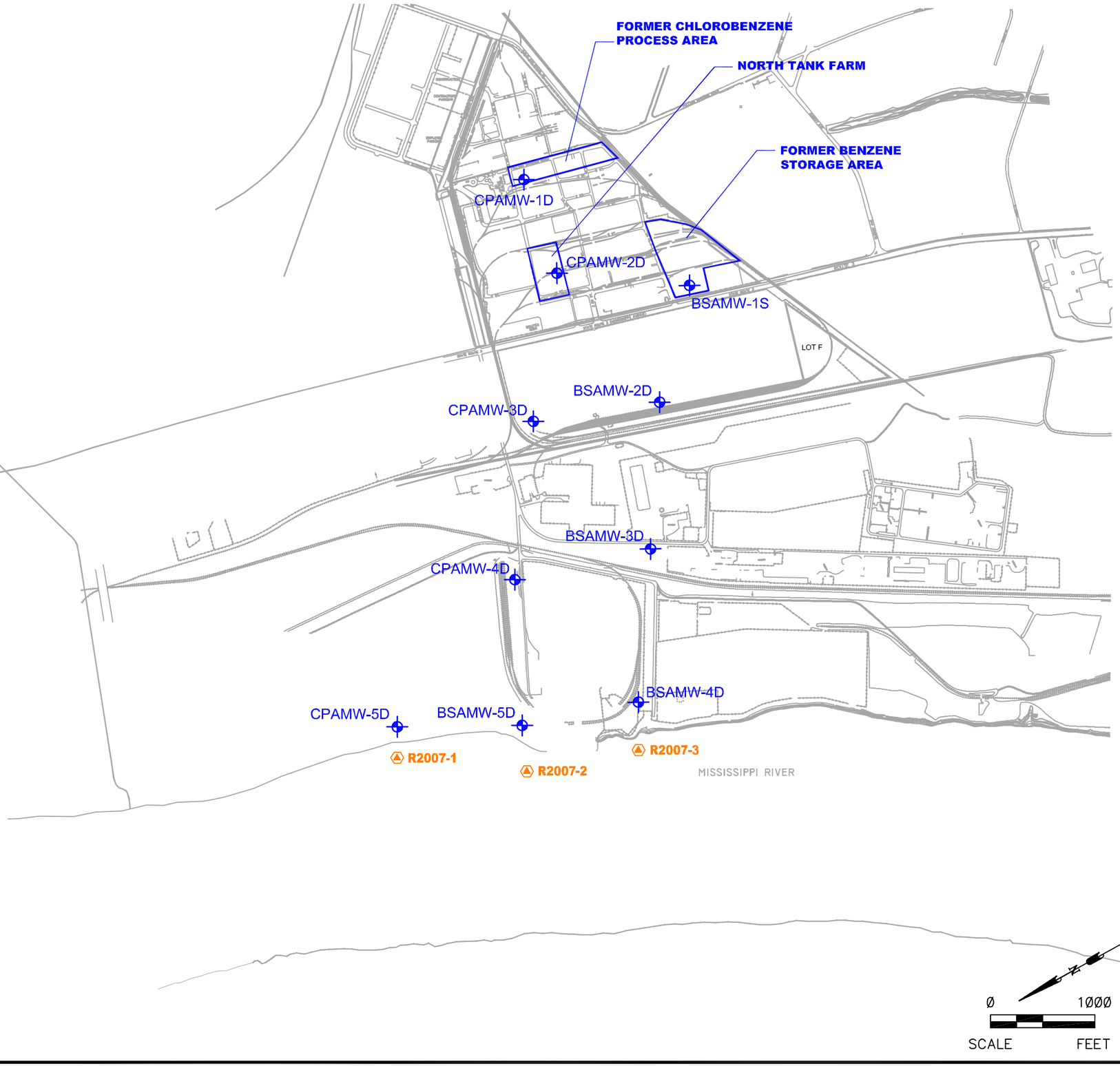
SCALE FEET

LONG–TERM MONITORING PROGRAM 3RD QUARTER 2ØØ8 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS	PROJECT NO. 21562Ø48
URS	
DRN. BY:lrm 12/12/Ø8 DSGN. BY:ekf CHKD. BY:tja	Site Location Map — FIG. NO. 1

File: P:\ENVIRONMENTAL\21561996 (WGK CM)\QUARTERLY SAMPLING\LONG TERM MONITORING PROGRAM\3QØ8 SAMPLING EVENT\DRAFT REPORT\3QØ8 FIGURES\FIG 1 SITE LOCATION MAP.DWG Last edited: DEC. 12, Ø8 @ 3:21 p.m. by: david_deguire



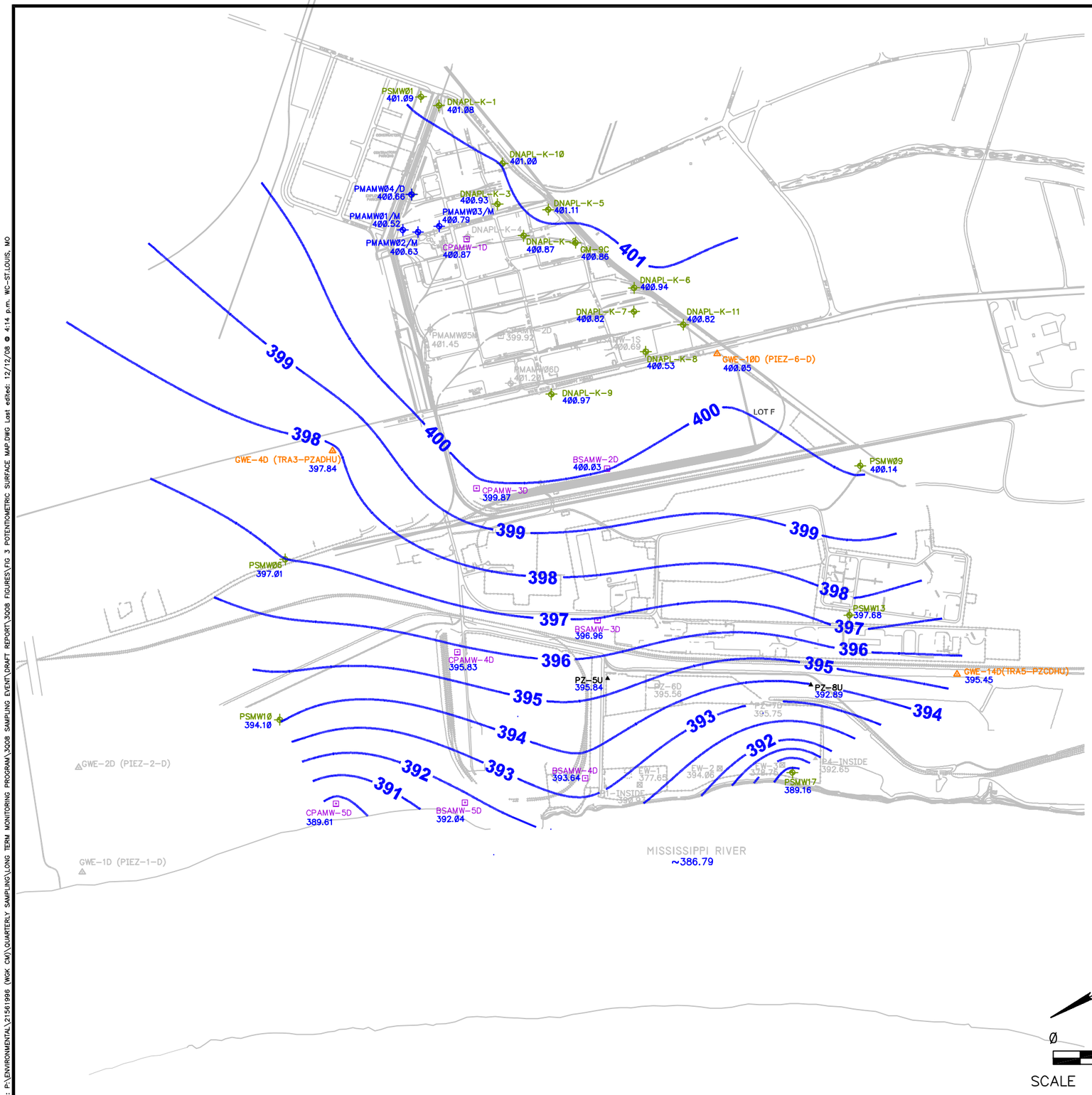
LEGEND

- LONG-TERM MONITORING WELL LOCATION
- LONG-TERM MONITORING PROGRAM SURFACE WATER / SEDIMENT SAMPLING LOCATION

Ø 1ØØØ
SCALE FEET

LONG-TERM MONITORING PROGRAM 3RD QUARTER 2ØØ8 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS	PROJECT NO. 21562Ø48
URS	
DRN. BY:lrm 12/12/Ø8 DSGN. BY:ekf CHKD. BY:tja	Long-Term Monitoring Program Well Locations and Surface Water/Sediment Sample Locations
	FIG. NO. 2

File: P:\ENVIRONMENTAL\21561996 (WGK CM)\QUARTERLY SAMPLING\LONG TERM MONITORING PROGRAM\3Ø08 SAMPLING EVENT\DRAFT REPORT\3Ø08 FIGURES\FIG 2 LONG TERM MONITORING PROGRAM.DWG Last edited: DEC. 12, Ø8 @ 4:Ø1 p.m. by: david_deguire



LEGEND

- LONG-TERM MONITORING WELL USED FOR GROUNDWATER CONTOURING
- OTHER MONITORING WELL USED FOR GROUNDWATER CONTOURING
- PIEZOMETER CLUSTER USED FOR GROUNDWATER CONTOURING
- GMCS EXTRACTION WELL USED FOR GROUNDWATER CONTOURING
- GMCS PIEZOMETER USED FOR GROUNDWATER CONTOURING
- —392— GROUNDWATER ELEVATION CONTOUR (FT NAVD)

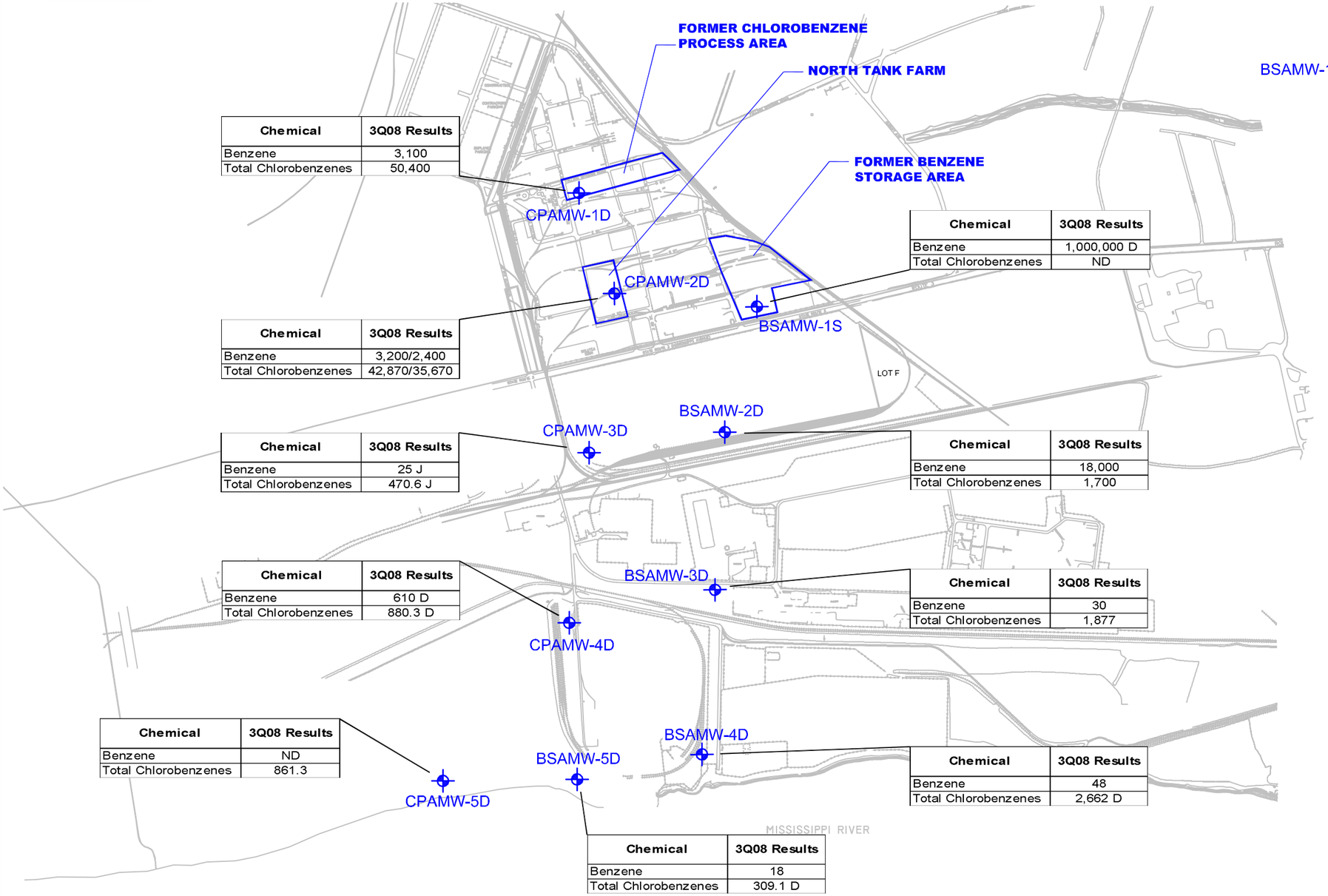
NOTES:

1. GROUNDWATER LEVELS WERE MEASURED AUGUST 18TH – 2ØTH, 2ØØ8.
2. CONTOURS GENERATED PRIMARILY USING SURFER SOFTWARE VERSION 8. SOME INTERPRETATION WAS DONE USING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
3. WELLS/PIEZOMETERS SHOWN IN GRAYSCALE WERE NOT USED FOR CONTOURING.
4. THE MISSISSIPPI RIVER STAGE ELEVATION PRESENTED ON THE FIGURE IS AN AVERAGE ELEVATION FOR THE TIME OF THE GAUGING EVENT. THE INFORMATION WAS OBTAINED FROM THE SITE R BUBBLER.
5. THE POTENTIOMETRIC SURFACE OBSERVED AROUND SITE R MAY BE ASSOCIATED WITH THE OPERATION OF THE SA2 GMCS.
6. NEITHER THE PHYSICAL NOR THE HYDROLOGIC BARRIERS CREATED BY THE SA2 GMCS WERE INCORPORATED INTO THE DEVELOPMENT OF THESE CONTOURS.
7. LOCATIONS WITH WELLS SCREENED IN BOTH THE MHU AND DHU UTILIZED THE DHU WELL FOR DEVELOPMENT OF THE POTENTIOMETRIC SURFACE MAP.
8. GROUNDWATER ELEVATION DATA FROM EW-1, EW-2, EW-3, PZ-6D, PZ-7D, P1-INSIDE, AND P4-INSIDE WERE NOT USED IN THE DEVELOPMENT OF THE POTENTIOMETRIC SURFACE DUE TO THE GROUNDWATER ELEVATIONS IN THESE WELLS APPEARING ANOMALOUS TO SURROUNDING WELLS. THE ANOMALOUS GROUNDWATER ELEVATIONS WERE A LIKELY RESULT OF EW-1 AND EW-3 OPERATING DURING THE GAUGING EVENT.
9. DATA FROM BSAMW-1S, WAS NOT INCLUDED IN THE DEVELOPMENT OF THE POTENTIOMETRIC SURFACE MAP SINCE THE WELL IS SCREENED IN THE SHALLOW HYDROGEOLOGIC UNIT.
10. DATA FROM PMAMWØ5M, CPAMW-2D, AND PMAMWØ6D WERE NOT INCLUDED IN THE DEVELOPMENT OF THE POTENTIOMETRIC SURFACE MAP DUE TO THE DATA APPEARING ANOMALOUS TO SURROUNDING GROUNDWATER LEVELS AND A REVIEW OF HISTORICAL POTENTOMETRIC SURFACE MAPS.

Ø 1ØØØ
SCALE FEET

LONG-TERM MONITORING PROGRAM 3RD QUARTER 2ØØ8 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS	PROJECT NO. 21562Ø48
URS	
DRN. BY:lrm 12/12/Ø8 DSGN. BY:ekf CHKD. BY:tja	Potentiometric Surface Map Middle Deep Hydrogeologic Unit
	FIG. NO. 3

File: P:\ENVIRONMENTAL\21561998 (WGK CW)\QUARTERLY SAMPLING\LONG TERM MONITORING PROGRAM\3Q08 SAMPLING EVENT\DRAFT REPORT\3Q08 FIGURES\FIG. 3 POTENTIOMETRIC SURFACE MAP.DWG Last edited: 12/12/08 @ 4:14 p.m. WC-ST.LOUIS, MO



Chemical	3Q08 Results
Benzene	3,100
Total Chlorobenzenes	50,400

Chemical	3Q08 Results
Benzene	1,000,000 D
Total Chlorobenzenes	ND

Chemical	3Q08 Results
Benzene	3,200/2,400
Total Chlorobenzenes	42,870/35,670

Chemical	3Q08 Results
Benzene	25 J
Total Chlorobenzenes	470.6 J

Chemical	3Q08 Results
Benzene	18,000
Total Chlorobenzenes	1,700

Chemical	3Q08 Results
Benzene	610 D
Total Chlorobenzenes	880.3 D

Chemical	3Q08 Results
Benzene	30
Total Chlorobenzenes	1,877

Chemical	3Q08 Results
Benzene	ND
Total Chlorobenzenes	861.3

Chemical	3Q08 Results
Benzene	48
Total Chlorobenzenes	2,662 D

Chemical	3Q08 Results
Benzene	18
Total Chlorobenzenes	309.1 D

LEGEND

BSAMW-1D — LONG–TERM MONITORING WELL LOCATION

NOTES:

1. TOTAL CHLOROBENZENES RESULTS INCLUDE THE SUM OF MONOCHLOROBENZENE, 1,2–DICHLOROBENZENE, 1,3–DICHLOROBENZENE, AND 1,4–DICHLOROBENZENE.
2. RESULTS SHOWN ARE IN ug/L.
3. ND DENOTES ANALYTE OR ANALYTES NOT DETECTED.
4. MULTIPLE SAMPLE RESULTS INDICATE A DUPLICATE SAMPLE.
5. D = SURROGATE OR MATRIX SPIKE RECOVERIES WERE NOT OBTAINED BECAUSE THE EXTRACT WAS DILUTED FOR ANALYSIS; ALSO COMPOUNDS ANALYZED AT A DILUTION WILL BE FLAGGED WITH A D.
6. J = ESTIMATED VALUE.

Ø 1ØØØ
SCALE FEET

LONG–TERM MONITORING PROGRAM
3RD QUARTER 2ØØ8 DATA REPORT
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

PROJECT NO. 21562Ø48

URS

DRN. BY:lrm 12/12/Ø8
DSGN. BY:EKF
CHKD. BY:tja

3QØ8 Benzene and Total Chlorobenzenes Results

FIG. NO. 4

File: P:\ENVIRONMENTAL\21561996 (WGK CM)\QUARTERLY SAMPLING\LONG TERM MONITORING PROGRAM\3Q08 SAMPLING EVENT\DRAFT REPORT\3Q08 FIGURES\FIG 4 3Q08 BENZENE AND CHLOROBENZENE RESULTS.DWG Last edited: DEC. 12, 08 @ 8:04 p.m. by: david_deguire

Tables

See last page of table for notes.

Table 1
Monitoring Well Gauging Information

Well ID	Construction Details						August 18-20, 2008				Area
	Ground Elevation (feet)*	Casing Elevation (feet)*	Depth to Top of Screen (feet bgs)**	Depth to Bottom of Screen (feet bgs)**	Top of Screen Elevation (feet)*	Bottom of Screen Elevation (feet)*	Depth to Water (feet) ***	Depth to Product (feet) ***	Depth to Bottom (feet)***	Water Elevation (feet)*	
Shallow Hydrogeologic Unit (SHU 395-380 feet NAVD 88)											
BSAMW-1S (PSMW05)	409.49	412.31	19.68	24.86	389.63	384.63	11.62	--	27.32	400.69	WGK
PMAMW01S	410.06	410.06	20.18	25.18	389.88	384.88	8.82	-	24.92	401.24	WGK
PMAMW02S	411.66	411.66	22.94	27.94	388.72	383.72	10.92	-	27.35	400.74	WGK
PMAMW03S	412.06	412.06	22.71	27.71	389.35	384.35	11.20	-	27.40	400.86	WGK
PMAMW04S	410.43	410.43	20.99	25.99	389.44	384.44	9.61	24.86*****	25.36	400.82	WGK
Middle Hydrogeologic Unit (MHU 380-350 feet NAVD 88)											
PMAMW01M	410.08	410.08	54.54	59.54	355.54	350.54	9.56	-	59.63	400.52	WGK
PMAMW02M	411.93	411.93	56.87	61.87	355.06	350.06	11.30	-	61.55	400.63	WGK
PMAMW03M	412.10	412.10	57.07	62.07	355.03	350.03	11.31	-	61.82	400.79	WGK
PMAMW05M	411.27	410.97	52.17	57.17	359.10	354.10	9.52	-	56.97	401.45	WGK
PSMW01	409.37	412.59	34.56	39.56	374.81	369.81	11.50	--	46.06	401.09	WGK
Deep Hydrogeologic Unit (DHU 350 feet NAVD 88 - Bedrock)											
BSAMW-2D (PSMW08)	412.00	415.13	65.79	70.79	346.21	341.21	15.10	--	77.05	400.03	WGK
BSAMW-3D (PSMW12)	412.91	415.74	104.80	109.80	308.11	303.11	18.78	--	114.82	396.96	WGK
BSAMW-4D (PSMW16D)	425.00	424.69	118.54	123.54	306.46	301.46	31.05	--	123.21	393.64	WGK
BSAMW-5D (PSMW15D(R))	420.80	420.49	116.25	120.85	304.95	299.95	28.45	--	120.95	392.04	WGK
CPAMW-1D (PSMW03)	408.62	408.32	66.12	71.12	342.50	337.50	7.45	--	70.81	400.87	WGK
CPAMW-2D (PSMW04)	408.51	408.20	99.96	104.96	308.55	303.55	8.28	--	104.67	399.92	WGK
CPAMW-3D (PSMW07)	410.87	410.67	101.90	106.90	308.97	303.97	10.80	--	112.87	399.87	WGK
CPAMW-4D (PSMW11)	421.57	421.20	116.44	121.44	305.13	300.13	25.37	--	121.02	395.83	WGK
CPAMW-5D (PSMW14D)	411.03	413.15	105.51	110.51	305.52	300.52	23.54	--	114.69	389.61	WGK
DNAPL-K-1	413.07	415.56	108.2	123.2	304.87	289.87	14.48	--	123.18	401.08	WGK
DNAPL-K-2	407.94	407.72	97.63	112.63	310.31	295.31	6.85	--	112.40	400.87	WGK
DNAPL-K-3	412.13	411.91	104.8	119.8	307.33	292.33	10.98	--	119.33	400.93	WGK
DNAPL-K-4	409.48	409.15	102.55	117.55	306.93	291.93	NG	NG	NG	--	WGK
DNAPL-K-5	412.27	411.91	102.15	117.15	310.12	295.12	10.80	--	116.50	401.11	WGK
DNAPL-K-6	410.43	410.09	102.47	117.47	307.96	292.96	9.15	--	116.95	400.94	WGK
DNAPL-K-7	408.32	407.72	100.4	115.4	307.92	292.92	6.90	--	115.38	400.82	WGK
DNAPL-K-8	408.56	411.38	102.65	117.65	305.91	290.91	10.85	--	117.20	400.53	WGK
DNAPL-K-9	406.45	405.97	97.42	112.42	309.03	294.03	5.00	--	111.20	400.97	WGK
DNAPL-K-10	413.50	413.25	105.43	120.43	308.07	293.07	12.25	--	120.35	401.00	WGK
DNAPL-K-11	412.20	411.78	105.46	120.46	306.74	291.74	10.96	--	120.30	400.82	WGK
EW-1	442.02	422.72	53	131	369.02	291.02	NG	NG****	NG	377.65	Site R
EW-2	418.53	419.84	41.50	104.90	377.03	313.63	NG	NG****	NG	394.06	Site R
EW-3	420.58	421.45	56.70	126.00	363.88	294.58	NG	NG****	NG	378.75	Site R
GM-9C	409.54	411.21	88	108	321.54	301.54	10.35	--	108.40	400.86	WGK
GWE-1D (PIEZ-1D)	412.80	415.60	117	127	295.80	285.80	NG	NG	NG	--	Sauget Area 2
GWE-2D (PIEZ-2D)	417.45	417.14	127	137	290.45	280.45	NG	NG	NG	--	Sauget Area 2
GWE-4D (TRA3-PZADHU)	406.05	405.74	74	80	332.05	326.05	7.90	--	78.80	397.84	WGK
GWE-10D (PIEZ-6D)	410.15	412.87	102.5	112.5	307.65	297.65	12.82	--	114.88	400.05	Lot F
GWE-14D (TRA5-PZCDHU)	420.47	422.90	90	96	330.47	324.47	27.45	--	96.98	395.45	WGK
P1-INSIDE	423.00	424.26	55.00	130.00	368.00	293.00	33.33	--	NG	390.93	Site R
P4- INSIDE	420.50	423.64	52.50	132.50	368.00	288.00	30.99	--	135.10	392.65	Site R
PMAMW04D (PSMW02)	411.22	410.88	68.84	73.84	342.38	337.38	10.22	-	73.37	400.66	WGK
PMAMW06D	407.63	407.32	96.49	101.49	311.14	306.14	6.12	-	101.29	401.20	WGK
PSMW06	404.11	406.63	99.80	104.80	304.31	299.31	9.62	--	109.84	397.01	WGK
PSMW09	403.92	403.52	100.40	105.40	303.52	298.52	3.38	--	105.15	400.14	WGK
PSMW10	409.63	412.18	101.23	106.23	308.40	303.40	18.08	--	111.31	394.10	WGK
PSMW13	405.80	405.53	106.08	111.08	299.72	294.72	7.85	--	110.24	397.68	WGK
PSMW17 (BWMW-4D)	420.22	423.26	121.25	126.25	298.97	293.97	34.10	--	134.06	389.16	WGK

See last page of table for notes.

Table 1
Monitoring Well Gauging Information

Well ID	Construction Details						August 18-20, 2008				Area
	Ground Elevation (feet)*	Casing Elevation (feet)*	Depth to Top of Screen (feet bgs)**	Depth to Bottom of Screen (feet bgs)**	Top of Screen Elevation (feet)*	Bottom of Screen Elevation (feet)*	Depth to Water (feet) ***	Depth to Product (feet) ***	Depth to Bottom (feet)***	Water Elevation (feet)*	
Deep Hydrogeologic Unit (DHU 350 feet NAVD 88 - Bedrock)											
PZ-5U	421.52	420.99	40.00	140.00	381.52	281.52	NG	NG****	NG	395.84	Site R
PZ-6D	421.64	418.64	41.70	131.70	377.55	287.55	NG	NG****	NG	395.56	Site R
PZ-7D	417.51	422.16	44.50	124.50	373.01	293.01	26.41	--	NG	395.75	Site R
PZ-8U	422.75	419.69	43.10	133.10	376.89	286.89	26.80	--	NG	392.89	Site R

Note:

* Elevation based upon North American Vertical Datum (NAVD) 88 datum.

** Feet below ground surface (feet bgs).

*** Depth is measured from top of casing.

**** Groundwater elevation obtained by automatic gauging equipment. Elevation is the average of the the elevations recorded on the three days well gauging was performed.

***** Approximated depth. The electronic interface probe did not register a product tone within the well. However, product was observed on a weighted string lowered into the well and an approximate depth to product was determined by the thickness of product observed on the string.

NG denotes not gauged.

Coordinates--State Plane 1983, Illinois West, NAD 1983.

Table 2
Groundwater Analytical Results

Sample ID	Sample Date	VOC						SVOC	
		1,2-Dichlorobenzene (ug/L)	1,3-Dichlorobenzene (ug/L)	1,4-Dichlorobenzene (ug/L)	1,4-Dioxane (ug/L)	Benzene (ug/L)	Chlorobenzene (ug/L)	2-Chlorophenol (ug/L)	P-Chloroaniline (ug/L)
BENZENE STORAGE AREA									
BSAMW01-0808	8/26/2008	<5,000	<5,000	<5,000		1000000 D	<5,000	<9.7	29
BSAMW02-0808	8/21/2008	<200	<200	<200	<9.7	18,000	1,700	<9.7	<19
BSAMW03-0808	8/25/2008	23	14	340	<9.7	30	1,500	11	<19
BSAMW04-0808	8/25/2008	13	<10	49	33	48	2600 D	15	<19
BSAMW05-0808	8/20/2008	4	<1	5.1	<10	18	300 D	<10	<20
CHLOROBENZENE PROCESS AREA									
CPAMW01-0808	8/26/2008	22,000	1,400	12,000		3,100	15,000	<47	690
CPAMW02-0808	8/26/2008	500	270	9,100		3,200	33,000	28	35
CPAMW02-0808-AD	8/26/2008	420	250	8,000		2,400	27,000	33	28
CPAMW03-0808	8/21/2008	4.2 J	<4	6.4 J		25 J	460 J	<9.7	95
CPAMW04-0808	8/25/2008	4.4	<2	5.9		610 D	870 D	<9.7	98
CPAMW05-0808	8/26/2008	6.1	<5	5.2		<5	850	10	<19

Notes:
ug/L = micrograms per liter
AD = Analytical Duplicate
<### = Result is non-detect, less than the reporting limit given.
A blank space indicates sample not analyzed for select analyte.
D = Surrogate or matrix sprike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
J = Estimated value

Table 3
Monitored Natural Attenuation Results Summary

Sample ID	Sample Date	Alkalinity (mg/L)	Carbon Dioxide (mg/L)	Chloride (mg/L)	Dissolved Oxygen (mg/L)	Ethane (ug/L)	Ethylene (ug/L)	Ferrous Iron (mg/L)	Iron (mg/L)	Iron, Dissolved (mg/L)	Manganese (mg/L)	Manganese, Dissolved (mg/L)	Methane (ug/L)	Nitrogen, Nitrate (mg/L)	Sulfate as SO4 (mg/L)	Dissolved Organic Carbon (mg/L)	Total Organic Carbon (mg/L)	ORP (mV)
Benzene Storage Area																		
BSAMW01-0808	8/26/2008	870	21 B	95	0.57	<0.35	<0.33		3		0.51		10,000	<0.05	130		8.8	-145.10
BSAMW01-F(0.2)0808	8/26/2008							1.17		1.2		0.47				7.6		
BSAMW02-0808	8/21/2008	710	26 B	98	0.06	6.9	<0.33		2.9		0.48		3,600	<0.05	130		5.4	35.80
BSAMW02-F(0.2)-0808	8/21/2008							2.39		2.3		0.43				4.3		
BSAMW03-0808	8/25/2008	500	19 B	82	0.53	2.3	0.8		12		0.59		250	<0.05	230		5.2	-125.10
BSAMW03-F(0.2)-0808	8/25/2008							>5		9.9		0.52				4.3		
BSAMW04-0808	8/25/2008	660	27 B	120	0.48	8.5	<0.33		9.6		0.66		170	<0.05	85		4.7	-118.00
BSAMW04-F(0.2)-0808	8/25/2008							>5		9.3		0.65				4		
BSAMW05-0808	8/20/2008	830	35 B	290	0.16	19	<0.33		19		0.63		1,300	<0.05	51		5.1	-1.80
BSAMW05-F(0.2)-0808	8/20/2008							NC		19		0.63				5.5		
Chlorobenzene Process Area																		
CPAMW01-0808	8/26/2008	1,200	<1	200	-0.01	72	<0.33		2.6		0.19		21,000	<0.05	14		16	-21.10
CPAMW01-F(0.2)-0808	8/26/2008							0		1.8		0.14				13		
CPAMW02-0808	8/26/2008	640	18 B	130	6.46	22 J	<0.33		5.8		0.36		7400 J	<0.05	<5		12	-105.60
CPAMW02-F(0.2)-0808	8/26/2008							NC		5.5		0.34				10		
CPAMW03-0808	8/21/2008	690	48 B	440	0.29	16	3.6		18		0.89		8,800	<0.05	<25		6.7	1.90
CPAMW03-F(0.2)-0808	8/21/2008							>5		18		0.88				6		
CPAMW04-0808	8/25/2008	830	27 B	280	0.63	25	<0.33		13		0.3		12,000	<0.05	<5		5.8	-147.70
CPAMW04-F(0.2)-0808	8/25/2008							>5		12		0.28				5.1		
CPAMW05-0808	8/26/2008	320	51 B	300	1.28	8.9	<0.33		100		2.9		55	<0.5	1,600		3.9	-85.80
CPAMW05-F(0.2)-0808	8/26/2008							>5		99		2.8				3.5		

Notes:
DO and ORP were measured in the field using YSI 6920 equipped with a flow-thru cell.
Ferrous Iron readings were measured in the field using a LaMotte Colorimeter after the groundwater passed through a 0.2 µ filter.
mg/L = milligrams per liter
ug/L = micrograms per liter
<### = Result is non-detect, less than the reporting limit given.
A blank space indicates sample not analyzed for select analyte.
F(0.2) = Sample was filtered utilizing a 0.2 µ filter in the field.
B = Compound was found in blank and sample
J = Estimated value
mV = millivolts
NC = Not collected

Appendix A

Groundwater Purging and Sampling Forms

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Long Term Monitoring Program
PROJECT NUMBER: 21561996.00003 2048
FIELD PERSONNEL: M. Corbett, S. Moore
DATE: 8/26/2008
WEATHER: sunny ; 80°
MONITORING WELL ID: BSAMW-1
SAMPLE ID: BSAMW01-0808

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 27.32 ft
Constructed Well Depth (btoc): 27.5 ft
Depth to Water (btoc): 12.70 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 22.50 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 14.62 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 24.82 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): ~~500~~ 750 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) ~~1500~~ 2250 mL
Ambient PID/FID Reading: 5.2 ppm
Wellbore PID/FID Reading: 164 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH (±0.2 units)	Temp (°C) (±3 %)	Cond. (ms/cm) (±3 %)	Turbidity (NTUs) (±10 % or ±2 mg/L)	DO (mg/l) (±10 % or ±2 mg/L)	ORP (mv) (±20 mV)
0	1112	12.77	colorless, clear	hydrocarbon	7.34	20.17	1.936	10.0	1.12	-118.0
800	1116	12.77			7.32	20.29	1.934	7.1	0.90	-129.1
1600	1120	12.77			7.34	20.31	1.941	3.6	0.63	-137.1
2400	1124	12.79			7.33	20.20	1.954	0.6	0.62	-141.4
3200	1128	12.82			7.32	20.16	1.955	0.2	0.60	-144.7
4000	1132	12.82			7.32	20.12	1.957	-0.7	0.58	-145.0
4800	1136	12.82			7.32	20.10	1.956	-1.2	0.57	-145.1

MEC

Start Time: 1112
Stop Time: 1136
Elapsed Time: 24 min
Average Purge Rate (mL/min): 200
Water Quality Meter ID: YSI 6920
Date Calibrated: 8/26/2008

SAMPLING DATA

Sample Date: 8/26/2008
Sample Time: 1140
Sample Method: Stainless Steel Monsoon
Sample Flow Rate: 200 mL/min
Analysis: VOCs(benzene & total chlorobenzene), SVOCs (4-Chloroaniline, 2-Chlorophenol & 1-4, Dioxane), MNA
Date Calibrated: NA

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Total Iron, Dissolved Iron(0.2 Micron filter), Total Manganese, Dissolved Manganese (0.2 Micron filter),
Methane, Total Organic Carbon, Dissolved Organic Carbon (0.2 Micron filter)

Ferrous Iron (0.2 Micron filter) = 1.17 ppm
Effervescence in VOA vials.

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Long Term Monitoring Program PROJECT NUMBER: 2048 ~~21561996~~.00003 FIELD PERSONNEL: M. Corbett, C. Williams
DATE: 8/ 21 /2008 WEATHER: Overcast, 85°
MONITORING WELL ID: BSAMW-2 SAMPLE ID: BSAMW02-0808

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 77.05 ft
Constructed Well Depth (btoc): 77.05 ft
Depth to Water (btoc): 15.58 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 72.05 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 61.47 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 74.55 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 500 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 1500 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

					±0.2 units		±3 %		±10 % or ±2 mg/L	±20 mV
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (ms/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	1450	15.60	colorless, clear	none	6.56	18.42	1.564	5.8	-0.06	31.3
600	1453	15.60	↓	↓	6.79	18.92	1.526	5.0	0.13	33.2
1200	1456	15.60			6.99	18.87	1.505	4.2	0.06	30.1
1800	1459	15.60			6.86	19.03	1.498	3.7	0.05	33.7
2400	1502	15.60			6.89	19.03	1.497	2.9	0.05	34.2
3000	1505	15.60			6.90	18.85	1.489	2.5	0.06	35.4
3600	1508	15.60			6.90	18.86	1.485	1.9	0.06	35.8
				MEC						

Start Time: 1450
Stop Time: 1508
Elapsed Time: 18 min
Average Purge Rate (mL/min): 200
Water Quality Meter ID: YSI 6920
Date Calibrated: 8/ 21 /2008

SAMPLING DATA

Sample Date: 8/ 21 2008
Sample Time: 1515
Analysis: VOCs(benzene & total chlorobenzene), SVOCs (4-Chloroaniline, 2-Chlorophenol & 1-4, Dioxane), MNA
Sample Method: Stainless Steel Monsoon
Sample Flow Rate: 200 mL/min
Date Calibrated: NA

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Total Iron, Dissolved Iron(0.2 Micron filter), Total Manganese, Dissolved Manganese (0.2 Micron filter),
Ferrous Iron (0.2 Micron filter) = 2.39 ppm

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Long Term Monitoring Program
PROJECT NUMBER: 2048 21561996.00003
FIELD PERSONNEL: M. Corbett, S. Moore
DATE: 8/25/2008
WEATHER: 80s, Sunny
MONITORING WELL ID: BSAMW-3
SAMPLE ID: BSAMW03-0808

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 114.82 ft
Constructed Well Depth (btoc): 114.85 ft
Depth to Water (btoc): 20.35 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 109.85 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 94.47 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 112.32 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): ~~500~~ 750 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) ~~1500~~ 2250 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH (±0.2 units)	Temp (°C) (±3 %)	Cond. (ms/cm) (±3 %)	Turbidity (NTUs) (±10 % or ±2 mg/L)	DO (mg/l) (±10 % or ±2 mg/L)	ORP (mv) (±20 mV)
200	1256	20.35	CLOUDY	NONE	7.11	18.25	1.430	60.7	2.21	-69.4
1000	1300	20.35	COLORLESS		6.94	18.97	1.554	38.9	1.11	-106.7
1800	1304	20.35			6.92	18.98	1.584	15.7	0.81	-119.2
2600	1308	20.35			6.92	18.80	1.579	10.1	0.73	-122.5
3400	1312	20.35			6.92	18.72	1.572	5.7	0.66	-121.6
4200	1316	20.35			6.92	18.73	1.566	4.2	0.61	-120.5
5000	1320	20.35			6.92	18.66	1.562	2.5	0.58	-121.1
5800	1324	20.35			6.92	18.80	1.561	1.8	0.55	-122.1
6600	1328	20.35			6.92	18.77	1.561	1.3	0.54	-122.4
7400	1332	20.35			6.91	18.69	1.559	1.2	0.53	-125.1

Start Time: 1254
Stop Time: 1335
Elapsed Time: 41 min
Average Purge Rate (mL/min): 200
Water Quality Meter ID: YSI 6920
Date Calibrated: 8/25/2008

SAMPLING DATA

Sample Date: 8/25/2008
Sample Time: 1335
Sample Method: Stainless Steel Monsoon
Sample Flow Rate: 200
Analysis: VOCs(benzene & total chlorobenzene), SVOCs (4-Chloroaniline, 2-Chlorophenol & 1-4, Dioxane), MNA
QA/QC: EB (BSAMW03-0808-EB)

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Total Iron, Dissolved Iron(0.2 Micron filter), Total Manganese, Dissolved Manganese (0.2 Micron filter),
Methane, Total Organic Carbon, Dissolved Organic Carbon (0.2 Micron filter)

Ferrous Iron (0.2 Micron filter) = over range

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Long Term Monitoring Program
PROJECT NUMBER: 21561996.00003
FIELD PERSONNEL: M. Corbett, S. Moore
DATE: 8/25/2008
WEATHER: 70s, Sunny
MONITORING WELL ID: BSAMW-4
SAMPLE ID: BSAMW04-0808

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 123.21 ft
Constructed Well Depth (btoc): 123.23 ft
Depth to Water (btoc): 33.31 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 118.23 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 89.9 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 120.71 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): ~~500~~ 750 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) ~~1500~~ 2250 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 1.0 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

					±0.2 units		±3 %		±10 % or ±2 mg/L	±20 mV
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (ms/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
200	0842	33.35	dk grey	chem. like	6.83	17.26	1.640	21.0	0.79	-119.7
1000	0846	33.35	grey		6.85	17.35	1.632	9.5	0.70	-119.5
1800	0850	33.35	colorless		6.86	17.29	1.625	8.2	0.67	-118.6
2600	0853	33.35			6.85	17.04	1.619	7.1	0.61	-117.6
3400	0857	33.35			6.85	17.01	1.615	4.1	0.57	-117.9
~~4200~~ 4200	0901	33.35			6.86	16.86	1.609	4.7	0.52	-117.8
5000	0905	33.35			6.86	16.82	1.610	2.3	0.49	-117.9
5800	0909	33.35			6.86	16.86	1.610	-0.2	0.48	-118.0

Start Time: 0840
Stop Time: 0915
Elapsed Time: 35 mins.
Average Purge Rate (mL/min): 200
Water Quality Meter ID: YSI 6920
Date Calibrated: 8/25/2008

SAMPLING DATA

Sample Date: 8/25/2008
Sample Time: 0915
Analysis: VOCs, SVOCs, PCBs, Pesticides, Herbicides, Metals, MNA
Sample Method: Stainless Steel Monsoon
Sample Flow Rate: 200
Date Calibrated: NA

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Total Iron, Dissolved Iron(0.2 Micron filter), Total Manganese, Dissolved Manganese (0.2 Micron filter),
Methane, Total Organic Carbon, Dissolved Organic Carbon (0.2 Micron filter)

Ferrous Iron (0.2 Micron filter) = over range

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Long Term Monitoring Program
PROJECT NUMBER: ~~21561996.00003~~ 21562048.0000B
FIELD PERSONNEL: M. Corbett, S. Moore
DATE: 8/20/2008
WEATHER: 80s, Cloudy
MONITORING WELL ID: BSAMW-5
SAMPLE ID: BSAMW05-0808

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 120.95 ft
Constructed Well Depth (btoc): 116.00 ft
Depth to Water (btoc): 29.05 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 121.00 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 91.90 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 118.45 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 500 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 1500 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH (±0.2 units)	Temp (°C)	Cond. (ms/cm) (±3 %)	Turbidity (NTUs)	DO (mg/l) (±10 % or ±2 mg/L)	ORP (mv) (±20 mV)
0	1330	29.15	colorless, clear	slight hydrocarb.	6.01	18.63	2.067	5.5	0.59	-16.6
600	1332	29.11			6.04	18.97	2.099	5.2	0.30	-9.9
1200	1334	29.11			6.08	18.87	2.103	4.3	0.26	-6.3
1800	1336	29.11			6.10	18.86	2.101	4.1	0.23	-6.5
2400	1338	29.11			6.12	18.67	2.097	3.8	0.20	-8.1
3000	1340	29.11			6.15	18.83	2.090	1.0	0.17	-5.5
3600	1342	29.11			6.27	18.80	2.093	0.1	0.16	-1.8

MEC

Start Time: 1329
Stop Time: 1342
Elapsed Time: 13 min
Average Purge Rate (mL/min): 300
Water Quality Meter ID: YSI 6920
Date Calibrated: 8/20/2008

SAMPLING DATA

Sample Date: 8/20/2008
Sample Time: 1350
Analysis: VOCs(benzene & total chlorobenzene), SVOCs (4-Chloroaniline, 2-Chlorophenol & 1-4, Dioxane), MNA
Sample Method: Stainless Steel Monsoon
Sample Flow Rate: 500
QA/QC: MS/MSD – did not collect at this well.

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Total Iron, Dissolved Iron(0.2 Micron filter), Total Manganese, Dissolved Manganese (0.2 Micron filter),
Methane, Total Organic Carbon, Dissolved Organic Carbon (0.2 Micron filter)
Ferrous Iron (0.2 Micron filter) = overrange

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Long Term Monitoring Program
PROJECT NUMBER: 2018 21561996.00003
FIELD PERSONNEL: M. Corbett, S. Moore
DATE: 8/26/2008
WEATHER: 80s, Sunny
MONITORING WELL ID: CPAMW-1
SAMPLE ID: CPAMW01-0808

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 70.81 ft
Constructed Well Depth (btoc): 70.82 ft
Depth to Water (btoc): 8.06 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 65.82 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 62.75 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 68.31 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): ~~500~~ 750 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) ~~1500~~ 2250 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 6.5 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

					±0.2 units		±3 %		±10 % or ±2 mg/L	±20 mV
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (ms/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
200	1301	8.12	light brown	chemical	10.09	21.18	2.410	281.5	0.89	-87.9
1000	1305	8.12			9.67	22.03	2.604	160.5	0.20	-49.1
1800	1309	8.12			9.61	21.90	2.649	91.9	0.07	-46.8
2600	1313	8.12			9.63	22.13	2.651	76.2	0.05	-48.5
3400	1317	8.12			9.64	22.27	2.653	56.1	0.02	-50.5
4200	1321	8.12			9.60	22.69	2.656	41.8	0.02	-48.8
5000	1325	8.12			9.57	22.84	2.649	38.6	0.02	-46.8
5800	1329	8.12			9.53	22.68	2.647	32.8	0.00	-42.5
6600	1333	8.12			9.48	22.71	2.648	30.2	-0.01	-38.2
7400	1337	8.12			9.47	22.69	2.649	29.8	-0.01	-36.9
8200	1341	8.12			9.45	22.86	2.648	28.1	-0.01	-32.1
9000	1345	8.12			9.42	22.64	2.649	29.8	-0.01	-29.7
9800	1349	8.12			9.40	22.45	2.654	30.2	-0.01	-23.6
11000	1355	8.12			9.37	22.47	2.650	26.1	-0.01	-18.6
12200	1401	8.12			9.37	22.49	2.648	26.4	-0.01	-21.1

Start Time: 1259
Stop Time: 1401
Elapsed Time: ~~12200~~ mL 62 min
Average Purge Rate (mL/min): 200
Water Quality Meter ID: YSI 6920
Date Calibrated: 8/26/2008

SAMPLING DATA

Sample Date: 8/26/2008
Sample Time: 1405
Sample Method: Stainless Steel Monsoon
Sample Flow Rate: 200
Analysis: VOCs(benzene & total chlorobenzene), SVOCs (4-Chloroaniline, 2-Chlorophenol & 1-4, Dioxane), MNA
Date Calibrated: NA

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Total Iron, Dissolved Iron(0.2 Micron filter), Total Manganese, Dissolved Manganese (0.2 Micron filter),
Methane, Total Organic Carbon, Dissolved Organic Carbon (0.2 Micron filter)

Ferrous Iron (0.2 Micron filter) = 0.00 ppm

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Long Term Monitoring Program
PROJECT NUMBER: 2048 21561996.00003
FIELD PERSONNEL: M. Corbett, S. Moore
DATE: 8/26/2008
WEATHER: 80s, Sunny
MONITORING WELL ID: CPAMW-2
SAMPLE ID: CPAMW02-0808

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 104.67 ft
Constructed Well Depth (btoc): 104.65 ft
Depth to Water (btoc): 9.45 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 99.65 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 95.2 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 102.15 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 500 750 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 1500 2250 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.2 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

Purge Volume (mL)	Time (8/26/2008)	Depth to Water (ft)	Color	Odor	pH (±0.2 units)	Temp (°C) (±3 %)	Cond. (ms/cm) (±3 %)	Turbidity (NTUs) (±10 % or ±2 mg/L)	DO (mg/l) (±10 % or ±2 mg/L)	ORP (mv) (±20 mV)
0	~~1525~~				~~6.74~~	~~22.19~~	~~1.569~~	~~99.2~~	~~0.98~~	~~-120.0~~
800	~~1650~~ 1554	9.45	lt brown	chemical	6.92	22.16	1.648	295.1	1.14	-116.5
1600	~~1654~~ 1558	9.45	↓	↓	6.85	21.92	1.612	145.1	0.67	-117.2
2400	~~1658~~ 1602	9.45	cloudy		6.85	21.73	1.601	94.5	0.60	-117.6
3200	~~1702~~ 1606	9.45			6.86	21.79	1.594	65.3	0.54	-117.6
4000	~~1706~~ 1610	9.45			6.86	21.84	1.596	56.0	0.51	-118.2
4800	1710	9.45			6.86	21.79	1.595	40.2	0.48	-118.0
5600	1714	9.45			6.87	21.82	1.598	39.3	0.45	-116.2
6400	1718	9.45			6.87	21.72	1.591	32.1	0.47	-119.1
7200	1722	9.45			6.87	21.72	1.588	30.5	0.46	-118.6
8000	1726	9.45	↓		6.87	21.58	1.588	30.3	0.47	-119.8
8800	1730	9.45	clear		6.88	21.50	1.582	10.0	0.45	-118.6
9600	1734	9.45			6.88	21.51	1.579	10.8	0.47	-118.8
10200	1738	9.45			6.89	21.37	1.578	23.7	0.46	-111.5
11000	1742	9.45	↓	↓	6.89	21.37	1.582	19.1	0.46	-105.6

Start Time: ~~1525~~ 1643
Stop Time: 1745
Elapsed Time: 62 min
Average Purge Rate (mL/min): 200
Water Quality Meter ID: YSI 6920
Date Calibrated: 8/26/2008

SAMPLING DATA

Sample Date: 8/26/2008
Sample Time: 1745
Sample Method: Stainless Steel Monsoon
Sample Flow Rate: 200
Analysis: VOCs(benzene & total chlorobenzene), SVOCs (4-Chloroaniline, 2-Chlorophenol & 1-4, Dioxane), MNA
QA/QC: AD

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Total Iron, Dissolved Iron(0.2 Micron filter), Total Manganese, Dissolved Manganese (0.2 Micron filter), Ferrous Iron (0.2 Micron filter) =
Methane, Total Organic Carbon, Dissolved Organic Carbon (0.2 Micron filter)

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Long Term Monitoring Program
PROJECT NUMBER: 2048 21561996.00003
FIELD PERSONNEL: M. Corbett, C. Williams
DATE: 8/21/2008
WEATHER: cloudy, 75°
MONITORING WELL ID: CPAMW-3
SAMPLE ID: CPAMW03-0808

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 112.87 ft
Constructed Well Depth (btoc): 113.00 ft
Depth to Water (btoc): 11.29 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 108.00 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 101.58 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 500 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 1500 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 1.5 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH (±0.2 units)	Temp (°C)	Cond. (ms/cm) (±3 %)	Turbidity (NTUs)	DO (mg/l) (±10 % or ±2 mg/L)	ORP (mv) (±20 mV)
0	1020	11.29	colorless, cloudy	slight hydrocarbon	6.41	19.70	2.411	15.8	1.29	7.8
600	1023	11.29	colorless, clear		6.60	19.86	2.292	13.8	0.51	5.0
1200	1026	11.29			6.69	19.73	2.214	9.2	0.47	0.6
1800	1029	11.29			6.61	19.66	2.194	4.6	0.40	3.3
2400	1032	11.29			6.61	19.57	2.183	1.1	0.35	3.0
3000	1035	11.29			6.65	19.67	2.180	1.0	0.29	2.3
3600	1038	11.29			6.69	19.75	2.182		0.29	1.9

MEC

Start Time: 1020
Stop Time: 1038
Elapsed Time: 18 min
Average Purge Rate (mL/min): 200
Water Quality Meter ID: YSI 6920
Date Calibrated: 8/21/2008

SAMPLING DATA

Sample Date: 8/21/2008
Sample Method: Stainless Steel Monsoon
Sample Time: 1050
Sample Flow Rate: 200 mL/min
Analysis: VOCs(benzene & total chlorobenzene), SVOCs (4-Chloroaniline, 2-Chlorophenol & 1-4, Dioxane), MNA
Date Calibrated: NA

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Total Iron, Dissolved Iron(0.2 Micron filter), Total Manganese, Dissolved Manganese (0.2 Micron filter),
Methane, Total Organic Carbon, Dissolved Organic Carbon (0.2 Micron filter)
Ferrous Iron (0.2 Micron filter) = Overrange
Sampled MS/MSD
Effervescence in VOA vials (VOCs).

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Long Term Monitoring Program
PROJECT NUMBER: 21561996.00003 2048
FIELD PERSONNEL: M. Corbett, S. Moore
DATE: 8/25/2008
WEATHER: 80s, sunny
MONITORING WELL ID: CPAMW-4
SAMPLE ID: CPAMW04-0808

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 121.02 ft
Constructed Well Depth (btoc): 121.07 ft
Depth to Water (btoc): 27.15 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 116.07 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 93.87 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 118.52 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): ~~500~~ 750 mL
Minimum Purge Volume = (3 x Flow Through Cell Volume) ~~1500~~ 2250 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH (±0.2 units)	Temp (°C) (±3 %)	Cond. (ms/cm) (±3 %)	Turbidity (NTUs) (±10 % or ±2 mg/L)	DO (mg/l) (±10 % or ±2 mg/L)	ORP (mv) (±20 mV)
200	1006	27.18	cloudy	none	7.05	18.32	2.235	49.1	0.88	-136.0
1000	1010	27.18	colorless		6.95	18.25	2.249	22.9	0.81	-139.6
1800	1014	27.18			6.94	18.09	2.236	10.7	0.73	-142.5
2600	1018	27.18			6.95	17.95	2.230	0.5	0.66	-144.1
3400	1022	27.18			6.96	17.96	2.230	0.9	0.66	-143.7
4200	1026	27.18			6.96	17.95	2.233	0.0	0.64	-144.0
5000	1030	27.18			6.96	17.91	2.233	0.8	0.63	-144.7

MEC

Start Time: 1004
Stop Time: 1030
Elapsed Time: 24 min
Average Purge Rate (mL/min): 200
Water Quality Meter ID: YSI 6920
Date Calibrated: 8/25/2008

SAMPLING DATA

Sample Date: 8/25/2008
Sample Time: 1035
Analysis: VOCs(benzene & total chlorobenzene), SVOCs (4-Chloroaniline, 2-Chlorophenol & 1-4, Dioxane), MNA
Sample Method: Stainless Steel Monsoon
Sample Flow Rate: 200 mL/min
Date Calibrated: NA

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Total Iron, Dissolved Iron(0.2 Micron filter), Total Manganese, Dissolved Manganese (0.2 Micron filter),
Methane, Total Organic Carbon, Dissolved Organic Carbon (0.2 Micron filter)
Ferrous Iron (0.2 Micron filter) = Overrange

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Long Term Monitoring Program
PROJECT NUMBER: 2048 21561996.00003
FIELD PERSONNEL: M. Corbett, S. Moore
DATE: 8/26/2008
WEATHER: Sunny, 70°
MONITORING WELL ID: CPAMW-5
SAMPLE ID: CPAMW05-0808

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 114.65 ft
Constructed Well Depth (btoc): 114.75 ft
Depth to Water (btoc): 26.37 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 109.75 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 88.32 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 112.19 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): ~~500~~ 750 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) ~~1500~~ 2250 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH (±0.2 units)	Temp (°C) (±3 %)	Cond. (ms/cm) (±3 %)	Turbidity (NTUs) (±10 % or ±2 mg/L)	DO (mg/l) (±10 % or ±2 mg/L)	ORP (mv) (±20 mV)
0	0908	26.38	colorless, clear	none	6.66	21.82	0.035	-2.8	8.44	-93.7
800	0912	26.38	↓	↓	7.00	23.90	0.035	30.9	4.94	-56.5
1600	0916	26.38			6.38	17.18	3.503	3.6	1.50	-76.7
2400	0920	26.38			6.38	17.26	3.497	0.5	1.40	-80.0
3200	0924	26.38			6.38	17.51	3.486	-1.7	1.36	-83.2
4000	0928	26.38			6.36	17.43	3.490	-2.2	1.30	-84.7
4800	0932	26.38			6.38	17.69	3.479	-2.7	1.28	-85.8
					MEC					

Start Time: 0905
Stop Time: 0932
Elapsed Time: 27 min
Average Purge Rate (mL/min): 200
Water Quality Meter ID: YSI 6920
Date Calibrated: 8/26/2008

SAMPLING DATA

Sample Date: 8/26/2008
Sample Time: 0935
Sample Method: Stainless Steel Monsoon
Sample Flow Rate: 200 mL/min
Analysis: VOCs(benzene & total chlorobenzene), SVOCs (4-Chloroaniline, 2-Chlorophenol & 1-4, Dioxane), MNA
Date Calibrated: NA

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Total Iron, Dissolved Iron(0.2 Micron filter), Total Manganese, Dissolved Manganese (0.2 Micron filter),
Methane, Total Organic Carbon, Dissolved Organic Carbon (0.2 Micron filter)

Ferrous Iron (0.2 Micron filter) = overrange

Appendix B

Chains-of-Custody

KPS044

Serial Number 002902

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Airbill No. 8640 3796 9990

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
WGK Long-Term Monitoring	21562048.00003	IL
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Lidya Gulizia		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Thomas Adams	314-429-0100	314-429-0462
CLIENT NAME	CLIENT E-MAIL	
URS Corporation	Thomas_adams@URSCorp.com	
CLIENT ADDRESS		
1001 Highlands Plaza Dr. W., Ste 300, St. Louis MO 63110		
COMPANY CONTRACTING THIS WORK (if applicable)		
Solutia		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ( )
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ( )
DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: VOC (Benzene & total Chlorobenzenes only) 8260B	SVOC (4-chloroaniline, 2-chlorophenol, 1,4-Dioxane) 8270C	Fe+Mn (Total)	Dissolved Fe+Mn	TOC (9175.1)	DOC (415.1)	Methane (RSK 175)	Alkalinity/CO_2 (310.1)	Chloride (325.2) sulfate (375.4)	Nitrate (353.2)	Sulfate (375.4) 9056	REMARKS
		PRESERVATIVE						HCl	none	HNO_3		HCl		none	none	none	H_2SO_4		
		NUMBER OF CONTAINERS SUBMITTED																	
8/20/08	—	Trip Blank-01		X				3											
↓	1350	BSAMW05-0808		X				3	2	1		1		3	1	1	1		DOC has been field filtered (0.2µ)
↓	1350	BSAMW05-F(0.2)-0808		X							1	1							

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	8/20/08	1800						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
KL	8/21/08	0933	YES ( ) NO ( )		680-39728	4.1°C

TAL8240-680 (1207)

Serial Number 002903

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Airbill No. 8640 3796 9980

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
WGK LongTerm Monitoring	21562048.00003	IL
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Lidya Gulizia		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Thomas Adams	314-429-0100	314-429-0462
CLIENT NAME	CLIENT E-MAIL	
URS Corporation	thomas_adams@urscorp.com	
CLIENT ADDRESS		
1001 Highlands Plaza Dr. W. Ste. 300, St. Louis, MO 63110		
COMPANY CONTRACTING THIS WORK (if applicable)		
Solutia		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ◯
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ◯
DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED: VOC (Benzene & Total chlorobenzenes only) 8260B, HCl	SVOC (4-Chloroaniline, 2-chlorophenol, 1,4-Dioxane) none	Fe+Mn (Total) 6010B, HNO3	Dissolved Fe+Mn 6010B, HNO3	TOC (415.1), HCl	DOC (415.1), HCl	Methane (RDK-175), none	Alkalinity/CO2 (310.1), none	Chloride (325.2)/Sulfate (375.4), none	Nitrate (353.2), none/H2SO4	REMARKS
8/21/08	—	Trip Blank-02		X				3										
	1050	CPAMW03-0808		X				3*	2	1		1		3	1	1	1/1	*Effervescence in VOC
		CPAMW03-F(0.2)-0808		X							1		1					VOAs.
		CPAMW03-0808-MS		X				3*	2	1		1		3	1	1	1/1	
		CPAMW03-F(0.2)-0808-MS		X							1		1					
		CPAMW03-0808-MSD		X				3*	2	1		1		3	1	1	1/1	
	↓	CPAMW03-F(0.2)-0808-MSD		X							1		1					
	1515	BSAMW02-0808		X				3	2	1		1		1	1	1	1/1	
↓	1515	BSAMW02-F(0.2)-0808		X							1		1					
		MEC																

PRESERVATIVE

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	8/21/08	1800						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	8/22/08	0854	YES ◯ NO ◯		680-39748	6°C / 5.7°C

TAL8240-680 (1207)

KPS045

Serial Number 013227

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Airbill No. 8640 3796 9968

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
WGK Long Term Monitoring	21562048.00003	IL
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Lidya Gulizia		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
thomas adams	314-429-0100	314-429-0462
CLIENT NAME	CLIENT E-MAIL	
URS Corporation	thomas_adams@urscorp.com	
CLIENT ADDRESS		
1001 Highlands Plaza Dr. W., Suite 300, St. Louis, MO 63110		
COMPANY CONTRACTING THIS WORK (if applicable)		
Solutia		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ( )
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ( )
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED: VOCs (Benzene and total chlorobenzenes only) 8260B; HCl	SVOCs (4-chloroaniline, 8270C 2-chlorophenol, 1,4-Dichlorobenzene) 625; none	Fe+Mn (Total) 6010B; HNO3	Fe+Mn Dissolved 6010B; HNO3	TOC (415.1); H2SO4	DOC (415.1); H2SO4	Methane (RSK-175); none	Alkalinity/CO2 (310.1); none	Chloride (325.2); none	Sulfate (375.4); none	Nitrate (353.2); H2SO4	REMARKS
8/25/08	—	TripBlank-03		X				3											Air bubble in one vial.
	0915	BSAMW04-0808	G	X			-	3	2	1		1		3	1	1	1/1		
	0915	BSAMW04-F(0.2)-0808	G	X							1		1						
	1035	CPAMW04-0808	G	X				3	2	1		1		3	1	1	1/1		
	1035	CPAMW04-F(0.2)-0808	G	X							1		1						
	1335	BSAMW03-0808	G	X				3	2	1		1		3	1	1	1/1		
	1335	BSA MW03-F(0.2)-0808	G	X							1		1						
	1515	BSAMW03-0808-EB	G	X				3	2	1		1		3	1	1	1/1		
↓	1515	BSA MW03-F(0.2)-0808-EB	G	X							1		1						

PRESERVATIVE

MEC

TEMP.: 2.6/1.4

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	8/25/08	1700						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	082608	0906	YES ( ) NO ( )		680039835	

TAL8240-680 (1207)

Serial Number 002899

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Airbill No: 8640 3796 9957

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
W6K Long Term Monitoring	21562048.00003	IL

TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Lidya Gulizia		

CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Thomas Adams	314-429-0100	314-429-0462

CLIENT NAME	CLIENT E-MAIL
URS Corporation	thomas_adams@urscorp.com

CLIENT ADDRESS: 1001 Highlands Plaza Dr. West, Suite 300, St. Louis, MO 63110

COMPANY CONTRACTING THIS WORK (if applicable): Solutia

PAGE 1 OF 1

STANDARD REPORT DELIVERY ◯ DATE DUE

EXPEDITED REPORT DELIVERY (SURCHARGE) ◯ DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: VOCs (Benzene + Total Chlorobenzenes only) 8260B	SVOCs (4-Chloroaniline, Dichlorophenol, 1-1, Dioxane) 8270C	Ca + Mn (Total) 6010B	Diss. Fe + Mn 6010B	TOC (415.1)	DOC (415.1)	Methane (RSK 175)	Alkalinity /CO_2 (310.1)	Chloride (325.2) / Sulfate (375.4)	Nitrate (353.2)	REMARKS
								HCl	none	HNO_3	HNO_3	HCl	HCl	none	none	none	none/H_2SO_4	
								NUMBER OF CONTAINERS SUBMITTED										
8/26/08	—	Trip Blank-04	G	X				3										
	0935	CPAMW05-0808	G	X				3	2	1		1		3	1	1	1/1	
	0935	CPA MW05-F(0.2)-0808	G	X							1		1					
	1140	BSA MW01-0808	G	X				3	2	1		1		3	1	1	1/1	VOC (2 of 3) had effervescense.
	1140	BSA MW01-F(0.2)-0808	G	X							1		1					
	1405	CPA MW01-0808	G	X				3	2	1		1		3	1	1	1/1	VOC vials - NO HCl short hold * No headspace in 2 vials.
	1405	CPA MW01-F(0.2)-0808	G	X							1		1					
	1745	CPA MW02-0808	G	X				3	2	1		1		3	1	1	1/1	
	1745	CPA MW02-F(0.2)-0808	G	X							1		1					
8/26/08	1745	CPA MW02-0808-AD	G	X				3	2	1		1		3	1	1	1/1	
	1745	CPA MW02-F(0.2)-0808-AD	G	X							1		1					
					SW													

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Jenny Moore	08/26/08	1800						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES ◯ NO ◯	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	082708	0905			680397874	TEMP: 4.9/4.4 4.0

TAL8240-680 (1207)

KRS003

Serial Number 002855

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
WSK-Mississippi River	215191994.00001	MO

TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Lidia Gulizia	215191994.00001	

CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Bob Billman	314-429-0100	429-0462

CLIENT NAME	CLIENT E-MAIL
URS Corporation	bob_billman@urscorp.com

CLIENT ADDRESS: 1001 Highlands Plaza Dr. West Ste 300 St. Louis, MO 63110

COMPANY CONTRACTING THIS WORK (if applicable)

PAGE 1 OF 2

STANDARD REPORT DELIVERY ( )

DATE DUE

EXPEDITED REPORT DELIVERY (SURCHARGE) ( )

DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

REQUIRED ANALYSIS

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
08/18/08	1420	R2007-1-0808	G	X				3 2 4 1	
08/18/08	1420	R2007-1-0808-MS	G	X				3 2 4 1	
08/18/08	1420	R2007-1-0808-MSD	G	X				3 2 4 1	
08/18/08	1430	R2007-1-0808	G		X			4 1	
08/18/08	1430	R2007-1-0808-MS	G		X			4 1	
08/18/08	1430	R2007-1-0808-MSD	G		X			4 1	
08/18/08	1615	R2007-2-0808	G	X				3 2	
08/18/08	1625	R2007-2-0808	G		X			4 1	
08/18/08	1655	R2007-3-0808	G	X				3 2	
08/18/08	1655	R2007-3-0808-AD	G	X				3 2	
08/18/08	1705	R2007-3-0808	G		X			4 1	
08/18/08	1705	R2007-3-0808-AD	G		X			4 1	

TEMP: 1.0

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	08/18/08	1930						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	081908	0857	YES ( ) NO ( )		68039643	

TAL8240-680 (1207)

Serial Number 002854

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

Field	Value
PROJECT REFERENCE	WGK Mississippi River
PROJECT NO.	21561994.00001
PROJECT LOCATION (STATE)	MO
TAL (LAB) PROJECT MANAGER	Lidya Gulizia
P.O. NUMBER	21561994.00001
CONTRACT NO.	
CLIENT (SITE) PM	Bob Billman
CLIENT PHONE	314-429-0100
CLIENT FAX	429-0462
CLIENT NAME	URS Corporation
CLIENT E-MAIL	bob_billman@urscorp.com
CLIENT ADDRESS	1001 Highlands Plaza Dr. West Ste. 300 St. Louis, MO 63110
COMPANY CONTRACTING THIS WORK (if applicable)	

PAGE 2 OF 2

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: 8260B Benzene, Toluene, Chlorobenzene, 1,4-dichlorobenzene; 8270C 1,2,4-Trichlorobenzene, 2-Chloroaniline, 4-Chloroaniline

PRESERVATIVE: HCl, Na thiosulfate; Na thiosulfate

STANDARD REPORT DELIVERY ◯ DATE DUE ______

EXPEDITED REPORT DELIVERY (SURCHARGE) ◯ DATE DUE ______

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	C/G	AQUEOUS	SOLID	AIR	NONAQUEOUS	Containers: 8260B	Containers: 8270C	REMARKS
08/18/08	1750	R2007-3-0808-EB	G	X				3	2	
08/18/08	—	TB #1	G	X				3		

Jennifer Schwent 08/18/08

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Jennifer Schwent	08/18/08	1930						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	081908	0857	YES ◯ NO ◯		68039643	

KRS004

Serial Number 002855

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
WSK Mississippi River	215e1994.0000	MO

TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Lidia Gulizia	215e1994.00001	

CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Bob Billman	314-429-0100	429-0462

CLIENT NAME	CLIENT E-MAIL
URS Corporation	bob_billman@urscorp.com

CLIENT ADDRESS: 1001 Highlands Plaza Dr. West Ste 300 St. Louis, MO 63110

COMPANY CONTRACTING THIS WORK (if applicable)

PAGE 1 OF 2

REQUIRED ANALYSIS

STANDARD REPORT DELIVERY ○

DATE DUE

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED				REMARKS
08/18/08	1420	R2007-1-0808	G	X				3	2		4	
08/18/08	1420	R2007-1-0808-MS	G	X				3	2		4	
08/18/08	1420	R2007-1-0808-MSD	G	X				3	2		4	
08/18/08	1430	R2007-1-0808	G		X						4	
08/18/08	1430	R2007-1-0808-MS	G		X						4	
08/18/08	1430	R2007-1-0808-MSD	G		X						4	
08/18/08	1615	R2007-2-0808	G	X				3	2			
08/18/08	1625	R2007-2-0808	G		X						4	
08/18/08	1655	R2007-3-0808	G	X				3	2			
08/18/08	1655	R2007-3-0808-AD	G	X				3	2			
08/18/08	1705	R2007-3-0808	G		X						4	
08/18/08	1705	R2007-3-0808-AD	G		X						4	

PRESERVATIVE

TEMP. 1.0

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	08/18/08	1930						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	081908	0857	YES ○ NO ○		680396 43	

TAL8240-680 (1207)

Appendix C

Surface Water and Sediment Sampling Forms

URS

Surface Water / Sediment Sampling Field Data Sheet

Project Number:	**Sampling Event:** Krummrich
Sampling Personnel: K Pulley S. Moore	**Sample Location:** R2007-1
Sample Date/Time: 8/14/08	**Sample Coordinates:**
SW: ~~1430~~ 1420 Sed: 1430	
Field Descriptions and Observations: water clear, no odor Sed is medium sand	
Weather Conditions: ~~Sun~~ Partly Cloudy Hot Humid 85°F	

Turb = 52

Water Quality Parameters

Specific Conductance (~~umhos~~): 0.486 mS/cm	**pH:** 8.78
Water Temperature (°C) 26.6	**Dissolved Oxygen (mg/L):** 7.69

Sample Collected (check)

SW	Sed		SW	Sed	
✓	✓	Volatile Orgaic Compounds			Pesticides
✓	✓	Semi-volatile Organic Compounds			Metals
		Herbicides			Other _____

Photographs

Photo Date/Time:			Camera/Disk ID:		
Number	**Direction**	**Description**	**Number**	**Direction**	**Description**
1		OF sample material			
2		"			

Comments/Notes: MS/MSD

URS

Surface Water / Sediment Sampling Field Data Sheet

Project Number:	**Sampling Event:** Krummrich
Sampling Personnel: K Pulley & S. Moore	**Sample Location:** R-2007-2
Sample Date/Time: 8/18/08	**Sample Coordinates:**
SW: 1615 / Sed: 1625	
Field Descriptions and Observations: water is clear Sediment is coarse sand & gravel (Brown)	
Weather Conditions: Partly Cloudy	

Water Quality Parameters Turb 69

Specific Conductance (µmhos): 0.490	**pH:** 8.75
Water Temperature (°C) 26.8	**Dissolved Oxygen (mg/L):** 7.99

Sample Collected (check)

SW	Sed		SW	Sed	
✓	✓	Volatile Orgaic Compounds			Pesticides
✓	✓	Semi-volatile Organic Compounds			Metals
		Herbicides			Other _____

Photographs

Photo Date/Time:			Camera/Disk ID:		
Number	**Direction**	**Description**	**Number**	**Direction**	**Description**
3	East	Photo of Offloading			
4	"	" Barge			

Comments/Notes:

URS

Surface Water / Sediment Sampling Field Data Sheet

Project Number:	**Sampling Event:** Krummrich
Sampling Personnel: KRiley SMoore	**Sample Location:** R-2007-3
Sample Date/Time: 8/18/08 SW: 1655 Sed: 1705	**Sample Coordinates:**
Field Descriptions and Observations: Water is clear. Sediment is Course ~~sand~~ gravel. (Brown)	
Weather Conditions: Mostly Cloudy Temp 85°F	

Water Quality Parameters Turb 45

Specific Conductance (µmhos): 0.492	**pH:** 8.68
Water Temperature (°C) 26.7	**Dissolved Oxygen (mg/L):** 8.1

Sample Collected (check)

SW	Sed		SW	Sed	
✓	✓	Volatile Orgaic Compounds			Pesticides
✓	✓	Semi-volatile Organic Compounds			Metals
		Herbicides			Other _____

Photographs

Photo Date/Time:			Camera/Disk ID:		
Number	**Direction**	**Description**	**Number**	**Direction**	**Description**

Comments/Notes: Dup collected for both SW & SED.

Appendix D

Quality Assurance Report

QUALITY ASSURANCE REPORT

Solutia Inc.
W.G. Krummrich Facility
Sauget, Illinois

WGK Long-Term Monitoring Program
3rd Quarter 2008
Data Report

Prepared for

Solutia Inc.
575 Maryville Centre Drive
St. Louis, MO 63141

December 2008

URS Corporation
1001 Highland Plaza Drive West, Suite 300
St. Louis, MO 63110
(314) 429-0100
Project # 21562048.00003

1.0 INTRODUCTION

This Quality Assurance Report presents the findings of a review of analytical data for groundwater, surface water and sediment samples collected in August 2008 at the Solutia W.G. Krummrich plant as part of the 3rd Quarter 2008 Long Term Monitoring Program. The samples were collected by URS Corporation personnel and analyzed by TestAmerica Laboratories located in Savannah, Georgia using USEPA methods, Standard methods and USEPA SW-846 methodologies. Groundwater samples were tested for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), selected metals, dissolved gasses, and general chemistry.

One hundred percent of the data were subjected to a data quality review (Level III validation) The Level III validations were performed in order to confirm that the analytical data provided by TestAmerica were acceptable in quality for their intended use.

A total of 14 groundwater samples (10 investigative samples, one field duplicate, one MS/MSD pair and one equipment blank) were analyzed by TestAmerica. In addition, four trip blanks were included in the coolers that contained samples for VOC analysis. These samples were analyzed as two Sample Delivery Groups (SDGs) KPS044 and KPS045 utilizing the following USEPA SW-846 Methods:

- Method 8260B for VOCs (Benzene, Chlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene and 1,4-Dichlorobenzene)
- Method 8270C for SVOCs (4-Chloroaniline, 2-Chlorophenol, 1,4-Dioxane and 1, 2, 4-Trichlorobenzene)
- Method 6010B for total and dissolved iron and manganese

Samples were also analyzed for dissolved gasses and general chemistry parameters by the following methods:

- Method RSK-175 for Dissolved Gasses
- USEPA Method 310.1 for Alkalinity
- USEPA Method 325.2 for Chloride
- USEPA Method 353.2 for Nitrogen, Nitrate-Nitrite
- USEPA Method 375.4 for Sulfate
- USEPA Method 415.1 for Total and Dissolved Organic Carbon

A total of 13 surface water and sediment samples (six investigative (three surface water and three sediment), two field duplicates, two MS/MSD pair and one equipment blank) were prepared and analyzed by TestAmerica. In addition, one trip blank was included in the cooler that contained samples for VOC analysis. The results were analyzed as two sample delivery groups (SDGs) KRS003 and KRS004 utilizing the

following USEPA SW-846 Methods:

- Method 8260B for benzene, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene and 1,4-dioxane.
- Method 8270C for 4-chloroaniline and 2-chlorophenol.

Samples were reviewed following procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999, USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004 and the Long Term Monitoring Plan, 2005.

The above guidelines provided the criteria to review the data. Additional quantitative criteria are given in the analytical methods. Qualifiers assigned by the data reviewer have been applied to the laboratory reporting forms (Form-1s). The qualifiers indicate data that did not meet acceptance criteria and corrective actions were not successful or not performed. The various qualifiers are explained in **Tables 1** and **2** below.

TABLE 1 Laboratory Data Qualifiers

Lab Qualifier	Definition
U	Analyte was not detected at or above the reporting limit.
*	LCS, LCSD, MS, MSD, MD or surrogate exceeds the control limits.
E	Result exceeded the calibration range, secondary dilution required.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Spike recovery exceeds upper or lower control limits.
F	MS, MSD or RPD exceeds upper or lower control limits.
P	The difference between the results of the two GC columns is greater than 40%
H	Sample was prepped or analyzed beyond the specified holding time.
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

TABLE 2 URS Data Qualifiers

URS Qualifier	Definition
U	The analyte was analyzed for but was not detected.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Based on the criteria outlined, it is recommended that the results reported for these analyses be accepted for their intended use. Acceptable levels of accuracy, precision, and representativeness (based on MS/MSD, matrix duplicate, LCS, surrogate compounds and field duplicate results) were achieved for this data set, except where noted in this report. In addition, analytical completeness, defined to be the percentage of analytical results which are judged to be valid, including estimated detect (**J**) or estimated non-detect (**UJ**) values was 100 percent, which meets the completeness goal of 95 percent.

The data review included evaluation of the following criteria:

Organics

- Receipt condition and sample holding times
- Laboratory method blanks, field equipment blanks and trip blank samples
- Surrogate spike recoveries
- Laboratory control sample (LCS) recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) sample recoveries and relative percent difference (RPD) values
- Field duplicate results
- Results reported from dilutions
- Internal standard responses

Inorganics/General chemistry

- Receipt condition and sample holding times
- Laboratory method blank and field equipment blank samples
- LCS recoveries
- MS/MSD sample recoveries and matrix duplicate RPD values
- Field duplicate and laboratory duplicate results
- Results reported from dilutions

The following sections present the results of the data review.

2.0 RECEIPT CONDITION AND SAMPLE HOLDING TIMES

Sample holding time requirements for the analyses performed are presented in the methods and/or in the data review guidelines. Review of the sample collection, extraction and analysis dates involved comparing the chain-of-custody and the laboratory data summary forms for accuracy, consistency, and holding time compliance. Upon review of the KPS044 data, all sample vials for samples CPAMW03-0808 and trip blank-02 were received by the laboratory with headspace. Sample CPAMW03-0808 was qualified using professional judgment due to headspace. Qualifications using professional judgment are included in the table below.

Field ID	Analyte	New RL	Qualification	Comments
CPAMW03-0808	All VOC detects and nondetects	-	**J/UJ**	Professional Judgment

Upon review of the KPS045 data, the sample ID date and year was left off many of the sample containers. This did not affect the quality of the data. No qualification of data was required. The cooler receipt form indicated that one out of three trip blank vials was received by the laboratory with headspace. One of the other two vials was used for VOC analysis. Two out of three vials for sample BSAMW01-0808 was received by the laboratory with effervescence. The remaining vial was used for VOC analysis. Three out of three vials for sample CPAMW01-0808 were received by the laboratory without hydrochloric acid preservation. Samples were analyzed within the shortened holding time. No qualifications of data were required.

Upon review of the KRS003 and KRS004 data, no problems were noted; therefore, no qualification of data was required.

Groundwater, surface water and sediment extractions and/or analyses were completed within the recommended holding time requirements; no qualification of data was required.

3.0 TRIP BLANKS, LABORATORY METHOD BLANK AND EQUIPMENT BLANK SAMPLES

Trip blank samples are used to assess VOC cross contamination of samples during shipment to the laboratory. One trip blank was submitted with each cooler shipped containing samples for VOC analyses for a total of five trip blank samples. All associated samples were nondetect; therefore, no qualification of data was required.

Laboratory method blank samples evaluate the existence and magnitude of contamination problems resulting from laboratory activities. All laboratory method blank samples were analyzed at the method prescribed frequencies. All groundwater method blank samples were nondetect with the exception of those that are further discussed in data reviews in Appendix D. No qualification of data was required. All sediment and surface water method blanks were nondetect; therefore, no qualification of data was required.

Groundwater equipment blank samples are used to assess the effectiveness of equipment decontamination procedures. All equipment blank samples were nondetect with the exception of those that are further discussed in data reviews in Appendix D. No qualification of data was required. All sediment and surface water method blanks were nondetect; therefore, no qualification of data was required.

4.0 SURROGATE SPIKE RECOVERIES

Surrogate compounds are used to evaluate overall laboratory performance for sample preparation efficiency on a per sample basis. All samples analyzed for VOCs and SVOCs were spiked with surrogate compounds during sample preparation. USEPA National Functional Guidelines for Organic Data Review state how data is qualified, if surrogate spike recoveries do not meet acceptance criteria.

Groundwater surrogate recoveries were within evaluation criteria with the exception of the samples that are further discussed in data reviews in Appendix D. Surrogates that were associated with quality control samples or were diluted out and not recovered did not require qualification. In addition, no qualification of data was required if only one SVOC acid or base fraction surrogate was outside criteria and USEPA National Functional Guidelines for Organic Data Review indicates to qualify data if two or more surrogates per SVOC fraction are outside criteria. No qualification of data was required.

Surface water and sediment surrogate recoveries were within evaluation criteria; therefore, no qualification of data was required.

5.0 LABORATORY CONTROL SAMPLE RECOVERIES

Groundwater, surface water and sediment laboratory control samples (LCS) are analyzed with each analytical batch to assess the accuracy of the analytical process. All LCS recoveries were within evaluation criteria. No qualification of data was required.

6.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) SAMPLES

MS/MSD samples are analyzed to assess the accuracy and precision of the analytical process on an analytical sample in a particular matrix. MS/MSD samples were required to be collected at a frequency of

one per 20 investigative samples in accordance with the work plan. URS Corporation submitted one MS/MSD sample set for 20 investigative samples meeting the work plan frequency requirement.

No qualifications were made to the data if the MS/MSD percent RPD was the only factor out of criteria. Also, USEPA National Functional Guidelines for Organic Data Review (October 1999) states that organic data should not be qualified based on MS/MSD criteria alone. Therefore, if recoveries were outside evaluation criteria due to matrix interference or abundance of analytes, no qualifiers were assigned unless these analytes had other quality control criteria outside evaluation criteria. Groundwater samples spiked and analyzed as MS/MSDs and their respective recoveries are discussed further in data reviews in Appendix D. No qualification of data was required.

Surface water and sediment MS/MSD recoveries were within evaluation criteria; therefore, no qualification of data was required.

7.0 FIELD DUPLICATE RESULTS

Field duplicate results are used to evaluate precision of the entire data collection activity, including sampling, analysis and site heterogeneity. When results for both duplicate and sample values are greater than five times the practical quantitation limit (PQL), satisfactory precision is indicated by an RPD less than or equal to 25 percent for aqueous samples. Where one or both of the results of a field duplicate pair are reported at less than five times the PQL, satisfactory precision is indicated if the field duplicate results agree within 2 times the quantitation limit. Field duplicate results that do not meet these criteria may indicate unsatisfactory precision of the results.

Two field duplicate samples were collected for the 20 investigative samples. This satisfies the requirement in the work plan (one per 10 investigative samples or 10 percent). All groundwater field duplicate RPDs were within evaluation criteria with the exception of the field duplicates discussed further in data reviews in Appendix D. Qualifications based on field duplicates are included in the table below.

SDG	Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
KPS045	CPAMW02-0808	CPAMW02-0808-AD	Dissolved Gasses	Ethane	**164**	**J**
KPS045	CPAMW02-0808	CPAMW02-0808-AD	Dissolved Gasses	Methane	**175**	**J**

All surface water and sediment field duplicate RPDs were within evaluation criteria; therefore, no qualification of data was required.

8.0 INTERNAL STANDARD RESPONSES

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during each analytical run. IS areas must be within -50 percent to +100 percent for VOCs and SVOCs.

The internal standards area responses for the VOCs and SVOCs were verified for the data review. All groundwater, surface water and sediment IS responses met the criteria as described above; therefore, no qualification of data was required.

9.0 RESULTS REPORTED FROM DILUTIONS

Groundwater VOC samples were diluted and reanalyzed due to the original results exceeding the calibration range of the instrument. These results were qualified by the laboratory with "E" qualifiers. Data for the original runs were reported except for the data results that were "E" qualified. The samples that had "E" qualifiers were diluted and reanalyzed. The diluted sample results of the "E" qualifiers were the only results reported from the diluted samples. Surface water and sediment samples did not require a dilution.

Appendix E
Groundwater Analytical Results (and Data Review Sheets)

SDG KPS044

Results of Samples from Wells:

BSAMW02
BSAMW05
CPAMW03

Solutia Krummrich Data Review

Laboratory SDG: KPS044

Reviewer: Tony Sedlacek

Date Reviewed: 10/29/2008

Guidance: USEPA National Functional Guidelines for Organic Data Review 1999. USEPA National Functional Guidelines for Inorganic Data Review 2004.

Applicable Work Plan: Long-Term Monitoring Program 2008

Sample Identification #	Sample Identification #
Trip Blank-01	BSAMW05-0808
BSAMW05-F(0.2)-0808	Trip Blank-02
CPAMW03-0808	CPAMW03-F(0.2)-0808
BSAMW02-0808	BSAMW02-F(0.2)-0808

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that all sample vials for samples CPAMW03-0808 and trip blank-02 were received by the laboratory with headspace. Carbon dioxide was detected in the method blank. MS recoveries for chlorobenzene and ethane and MS/MSD recoveries for 4-chloroaniline were outside evaluation criteria in sample BSAMW05-0808. Sample CPAMW03-0808 was qualified using professional judgment. These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated that the sample ID date and year was left off many of the sample containers. This did not affect the quality of the data. No qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within QAPP limits?

Yes

Field ID	Parameter	Analyte	Qualification
N/A			

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration	Units
MB 680-115260	General chemistry	Carbon Dioxide	1.9	mg/L
MB 680-115861	General chemistry	Carbon Dioxide	3.0	mg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported nondetect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification. In addition, samples were not qualified due to carbon dioxide since carbon dioxide in the air is very soluble in water and the method blank results are not representative of the site.

Field ID	Parameter	Analyte	New RL	Qualification
N/A				

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

LCS ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/RPD Criteria
N/A					

Analytical data that required qualification based on LCS data are included in the table below. Analytical data which were reported as nondetect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require

qualification.

Field ID	Parameter	Analyte	Qualification
N/A			

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

Field ID	Parameter	Surrogate	Recovery	Criteria
N/A				

Analytical data that required qualification based on surrogate data are included in the table below. Analytical data which were reported as nondetect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Field ID	Parameter	Analyte	Qualification
N/A			

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples reported as part of this SDG?

Yes, sample BSAMW05-0808 was spiked and analyzed for VOCs, SVOCs, dissolved gasses, total and dissolved iron and manganese, chloride, nitrate and nitrate/nitrite, sulfate, total and dissolved organic carbon.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery	RPD	MS/MSD/RPD Criteria
BSAMW05-0808	VOCs	Chlorobenzene	**79**/89	3	85-116/30
BSAMW05-0808	SVOCs	4-Chloroaniline	**0/0**	11	10-110/40
BSAMW05-0808	Dissolved gasses	Ethane	**139**/113	12	75-125/30

Analytical data that required qualification based on MS/MSD data are included in the table below. USEPA National Functional Guidelines for Organic Data Review indicates that organic data should not be qualified based on MS/MSD data alone and

LCS recoveries were within evaluation criteria, therefore no qualification of the data was required.

Field ID	Parameter	Analyte	Qualification
N/A			

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

Field ID	Parameter	Analyte	IS Area Recovery	IS Criteria
N/A				

Analytical data that required qualification based on IS data are included in the table below.

Field ID	Parameter	Analyte	Qualification
N/A			

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

Yes, sample BSAMW05-0808 was duplicated and analyzed for alkalinity and carbon dioxide, Sample BSAMW02-0808 was duplicated and analyzed for alkalinity and carbon dioxide.

Were laboratory duplicate sample RPDs within criteria?

Yes

Field ID	Parameter	Analyte	RPD	Criteria
N/A				

Data qualified due to outlying laboratory duplicate recoveries are identified below:

Field ID	Parameter	Analyte	Qualification
N/A			

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

Field ID	Field Duplicate ID
N/A	

Were field duplicates within evaluation criteria?

N/A

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
N/A					

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Analytes were detected in samples that were diluted.

The following table identifies the analyses which were reported as nondetect, diluted, and an undiluted run ***was not*** reported:

Field ID	Parameter	Dilution Factor
N/A		

12.0 Additional Qualifications

Were additional qualifications applied?

Yes

Professional judgment was used to qualify VOCs in sample CPAMW03-0808 due to potential loss (volatilization) of analytes due to headspace in all sample vials.

Field ID	Analyte	New RL	Qualification	Comments
CPAMW03-0808	All VOC detects and nondetects	-	**J/UJ**	Professional Judgment

SAMPLE SUMMARY

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-39728-1	Trip Blank-01	Water	08/20/2008 0000	08/21/2008 0933
680-39728-2	BSAMW05-0808	Water	08/20/2008 1350	08/21/2008 0933
680-39728-3	BSAMW05-F(0.2)-0808	Water	08/20/2008 1350	08/21/2008 0933
680-39748-1TB	Trip Blank-02	Water	08/21/2008 0000	08/22/2008 0854
680-39748-2	CPAMW03-0808	Water	08/21/2008 1050	08/22/2008 0854
680-39748-2MS	CPAMW03-0808	Water	08/21/2008 1050	08/22/2008 0854
680-39748-2MSD	CPAMW03-0808	Water	08/21/2008 1050	08/22/2008 0854
680-39748-3	CPAMW03-F(0.2)-0808	Water	08/21/2008 1050	08/22/2008 0854
680-39748-3MS	CPAMW03-F(0.2)-0808	Water	08/21/2008 1050	08/22/2008 0854
680-39748-3MSD	CPAMW03-F(0.2)-0808	Water	08/21/2008 1050	08/22/2008 0854
680-39748-4	BSAMW02-0808	Water	08/21/2008 1515	08/22/2008 0854
680-39748-5	BSAMW02-F(0.2)-0808	Water	08/21/2008 1515	08/22/2008 0854

SAMPLE RESULTS

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **Trip Blank-01**

Lab Sample ID: 680-39728-1
Client Matrix: Water

Date Sampled: 08/20/2008 0000
Date Received: 08/21/2008 0933

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/28/2008 1434
Date Prepared: 08/28/2008 1434

Analysis Batch: 680-115770

Instrument ID: GC/MS Volatiles - O C2
Lab File ID: o4678.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	92	75 - 120
Dibromofluoromethane	89	75 - 121
Toluene-d8 (Surr)	102	75 - 120

* DO NOT USE THIS DATA. USE ALL OTHER DATA

Analytical Data

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **BSAMW05-0808**

Lab Sample ID: 680-39728-2
Client Matrix: Water

Date Sampled: 08/20/2008 1350
Date Received: 08/21/2008 0933

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/28/2008 1503
Date Prepared: 08/28/2008 1503

Analysis Batch: 680-115770

Instrument ID: GC/MS Volatiles - O C2
Lab File ID: o4680.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	18		1.0
* ~~Chlorobenzene~~	~~280~~	~~E~~	~~1.0~~
1,2-Dichlorobenzene	4.0		1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	5.1		1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	91	75 - 120
Dibromofluoromethane	87	75 - 121
Toluene-d8 (Surr)	101	75 - 120

* Use this data only. All other data was reported from the undiluted analysis.

Analytical Data

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **BSAMW05-0808**

Lab Sample ID: 680-39728-2
Client Matrix: Water

Date Sampled: 08/20/2008 1350
Date Received: 08/21/2008 0933

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 08/28/2008 1720
Date Prepared: 08/28/2008 1720

Analysis Batch: 680-115770
Run Type: DL

Instrument ID: GC/MS Volatiles - O C2
Lab File ID: o4686.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
~~Benzene~~	~~21~~	~~D~~	~~2.0~~
* Chlorobenzene	300	D	2.0
~~1,2-Dichlorobenzene~~	~~4.4~~	~~D~~	~~2.0~~
~~1,3-Dichlorobenzene~~	~~2.0~~	~~U~~	~~2.0~~
~~1,4-Dichlorobenzene~~	~~5.3~~	~~D~~	~~2.0~~

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	95	75 - 120
Dibromofluoromethane	79	75 - 121
Toluene-d8 (Surr)	104	75 - 120

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **Trip Blank-02**

Lab Sample ID: 680-39748-1TB
Client Matrix: Water

Date Sampled: 08/21/2008 0000
Date Received: 08/22/2008 0854

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 09/03/2008 1245
Date Prepared: 09/03/2008 1245

Analysis Batch: 680-116153

Instrument ID: GC/MS Volatiles - P
Lab File ID: p2513.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	100	75 - 120
Dibromofluoromethane	107	75 - 121
Toluene-d8 (Surr)	96	75 - 120

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **CPAMW03-0808**

Lab Sample ID: 680-39748-2
Client Matrix: Water

Date Sampled: 08/21/2008 1050
Date Received: 08/22/2008 0854

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 4.0
Date Analyzed: 09/03/2008 1314
Date Prepared: 09/03/2008 1314

Analysis Batch: 680-116153

Instrument ID: GC/MS Volatiles - P
Lab File ID: p2515.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	25	"J"	4.0
Chlorobenzene	460	"J"	4.0
1,2-Dichlorobenzene	4.2	"J"	4.0
1,3-Dichlorobenzene	4.0	U "UJ"	4.0
1,4-Dichlorobenzene	6.4	"J"	4.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	98	75 - 120
Dibromofluoromethane	108	75 - 121
Toluene-d8 (Surr)	93	75 - 120

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **BSAMW02-0808**

Lab Sample ID: 680-39748-4
Client Matrix: Water

Date Sampled: 08/21/2008 1515
Date Received: 08/22/2008 0854

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 200
Date Analyzed: 09/03/2008 1344
Date Prepared: 09/03/2008 1344

Analysis Batch: 680-116153

Instrument ID: GC/MS Volatiles - P
Lab File ID: p2517.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	18000		200
Chlorobenzene	1700		200
1,2-Dichlorobenzene	200	U	200
1,3-Dichlorobenzene	200	U	200
1,4-Dichlorobenzene	200	U	200

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	100	75 - 120
Dibromofluoromethane	108	75 - 121
Toluene-d8 (Surr)	96	75 - 120

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **BSAMW05-0808**

Lab Sample ID: 680-39728-2
Client Matrix: Water

Date Sampled: 08/20/2008 1350
Date Received: 08/21/2008 0933

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/26/2008 2300
Date Prepared: 08/25/2008 1205

Analysis Batch: 680-115517
Prep Batch: 680-115341

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2088.d
Initial Weight/Volume: 980 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	10	U	10
4-Chloroaniline	20	U	20
1,4-Dioxane	10	U	10

Surrogate	%Rec	Acceptance Limits
Phenol-d5	56	38 - 116
2-Fluorophenol	49	36 - 110
2,4,6-Tribromophenol	80	40 - 139
Nitrobenzene-d5	62	45 - 112
2-Fluorobiphenyl	53	50 - 113
Terphenyl-d14	29	10 - 121

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **CPAMW03-0808**

Lab Sample ID: 680-39748-2
Client Matrix: Water

Date Sampled: 08/21/2008 1050
Date Received: 08/22/2008 0854

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/27/2008 1307
Date Prepared: 08/25/2008 1205

Analysis Batch: 680-115642
Prep Batch: 680-115341

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2098.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	9.7	U	9.7
4-Chloroaniline	95		19

Surrogate	%Rec	Acceptance Limits
Phenol-d5	48	38 - 116
2-Fluorophenol	44	36 - 110
2,4,6-Tribromophenol	72	40 - 139
Nitrobenzene-d5	56	45 - 112
2-Fluorobiphenyl	50	50 - 113
Terphenyl-d14	23	10 - 121

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **BSAMW02-0808**

Lab Sample ID: 680-39748-4
Client Matrix: Water

Date Sampled: 08/21/2008 1515
Date Received: 08/22/2008 0854

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/26/2008 2346
Date Prepared: 08/25/2008 1205

Analysis Batch: 680-115517
Prep Batch: 680-115341

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2090.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	9.7	U	9.7
4-Chloroaniline	19	U	19
1,4-Dioxane	9.7	U	9.7

Surrogate	%Rec	Acceptance Limits
Phenol-d5	56	38 - 116
2-Fluorophenol	51	36 - 110
2,4,6-Tribromophenol	75	40 - 139
Nitrobenzene-d5	64	45 - 112
2-Fluorobiphenyl	53	50 - 113
Terphenyl-d14	25	10 - 121

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **BSAMW05-0808**

Lab Sample ID: 680-39728-2
Client Matrix: Water

Date Sampled: 08/20/2008 1350
Date Received: 08/21/2008 0933

RSK-175 Dissolved Gases in Water

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1814
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090201.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	19		0.35
Ethylene	0.33	U	0.33

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1814
Date Prepared: N/A

Analysis Batch: 680-116197

Instrument ID: GC Volatiles - U TCD
Lab File ID: U090201.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Methane	1300		0.19

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **CPAMW03-0808**

Lab Sample ID: 680-39748-2
Client Matrix: Water

Date Sampled: 08/21/2008 1050
Date Received: 08/22/2008 0854

RSK-175 Dissolved Gases in Water

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/03/2008 1253
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090225.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	16		0.35
Ethylene	3.6		0.33

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/03/2008 1253
Date Prepared: N/A

Analysis Batch: 680-116197

Instrument ID: GC Volatiles - U TCD
Lab File ID: U090225.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Methane	8800		0.19

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **BSAMW02-0808**

Lab Sample ID: 680-39748-4
Client Matrix: Water

Date Sampled: 08/21/2008 1515
Date Received: 08/22/2008 0854

RSK-175 Dissolved Gases in Water

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1840
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090203.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	6.9		0.35
Ethylene	0.33	U	0.33

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1840
Date Prepared: N/A

Analysis Batch: 680-116197

Instrument ID: GC Volatiles - U TCD
Lab File ID: U090203.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Methane	3600		0.19

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **BSAMW05-0808**

Lab Sample ID: 680-39728-2
Client Matrix: Water

Date Sampled: 08/20/2008 1350
Date Received: 08/21/2008 0933

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method:	6010B	Analysis Batch: 680-115764		Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115597		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	08/27/2008 2144			Final Weight/Volume:	50 mL
Date Prepared:	08/27/2008 1003				

Analyte	Result (mg/L)	Qualifier	RL
Iron	19		0.050
Manganese	0.63		0.010

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **BSAMW05-F(0.2)-0808**

Lab Sample ID: 680-39728-3
Client Matrix: Water

Date Sampled: 08/20/2008 1350
Date Received: 08/21/2008 0933

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method:	6010B	Analysis Batch: 680-115764		Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115597		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	08/27/2008 2149			Final Weight/Volume:	50 mL
Date Prepared:	08/27/2008 1003				

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	19		0.050
Manganese, Dissolved	0.63		0.010

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **CPAMW03-0808**

Lab Sample ID: 680-39748-2
Client Matrix: Water

Date Sampled: 08/21/2008 1050
Date Received: 08/22/2008 0854

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method:	6010B	Analysis Batch: 680-115764		Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115597		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	08/27/2008 2154			Final Weight/Volume:	50 mL
Date Prepared:	08/27/2008 1003				

Analyte	Result (mg/L)	Qualifier	RL
Iron	18		0.050
Manganese	0.89		0.010

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **CPAMW03-F(0.2)-0808**

Lab Sample ID: 680-39748-3
Client Matrix: Water

Date Sampled: 08/21/2008 1050
Date Received: 08/22/2008 0854

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method:	6010B	Analysis Batch: 680-115764	Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115597	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	08/27/2008 2231		Final Weight/Volume:	50 mL
Date Prepared:	08/27/2008 1003			

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	18		0.050
Manganese, Dissolved	0.88		0.010

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **BSAMW02-0808**

Lab Sample ID: 680-39748-4
Client Matrix: Water

Date Sampled: 08/21/2008 1515
Date Received: 08/22/2008 0854

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method:	6010B	Analysis Batch: 680-115764		Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115597		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	08/27/2008 2247			Final Weight/Volume:	50 mL
Date Prepared:	08/27/2008 1003				

Analyte	Result (mg/L)	Qualifier	RL
Iron	2.9		0.050
Manganese	0.48		0.010

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Client Sample ID: **BSAMW02-F(0.2)-0808**

Lab Sample ID: 680-39748-5
Client Matrix: Water

Date Sampled: 08/21/2008 1515
Date Received: 08/22/2008 0854

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method:	6010B	Analysis Batch: 680-115764	Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115597	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	08/27/2008 2252		Final Weight/Volume:	50 mL
Date Prepared:	08/27/2008 1003			

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	2.3		0.050
Manganese, Dissolved	0.43		0.010

General Chemistry

Client Sample ID: **BSAMW05-0808**

Lab Sample ID: 680-39728-2
Client Matrix: Water

Date Sampled: 08/20/2008 1350
Date Received: 08/21/2008 0933

Analyte	Result	Qual	Units		RL	Dil	Method
Chloride	290		mg/L		5.0	5.0	325.2
	Anly Batch: 680-115635		Date Analyzed	08/27/2008 1041			
Nitrate as N	0.050	U	mg/L		0.050	1.0	353.2
	Anly Batch: 680-115431		Date Analyzed	08/21/2008 1737			
Sulfate	51		mg/L		10	2.0	375.4
	Anly Batch: 680-115641		Date Analyzed	08/27/2008 1250			
Total Organic Carbon	5.1		mg/L		1.0	1.0	415.1
	Anly Batch: 680-115918		Date Analyzed	08/29/2008 0227			

Analyte	Result	Qual	Units		RL	Dil	Method
Alkalinity	830		mg/L		1.0	1.0	310.1
	Anly Batch: 680-115861		Date Analyzed	08/28/2008 1028			
Carbon Dioxide, Free	35	B	mg/L		1.0	1.0	310.1
	Anly Batch: 680-115861		Date Analyzed	08/28/2008 1028			

Client Sample ID: **BSAMW05-F(0.2)-0808**

Lab Sample ID: 680-39728-3
Client Matrix: Water

Date Sampled: 08/20/2008 1350
Date Received: 08/21/2008 0933

Analyte	Result	Qual	Units		RL	Dil	Method
Dissolved Organic Carbon-D	5.5		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116700		Date Analyzed	08/29/2008 0303			

General Chemistry

Client Sample ID: **CPAMW03-0808**

Lab Sample ID: 680-39748-2
Client Matrix: Water

Date Sampled: 08/21/2008 1050
Date Received: 08/22/2008 0854

Analyte	Result	Qual	Units		RL	Dil	Method
Chloride	440		mg/L		5.0	5.0	325.2
	Anly Batch: 680-115635		Date Analyzed	08/27/2008 1043			
Nitrate as N	0.050	U	mg/L		0.050	1.0	353.2
	Anly Batch: 680-115431		Date Analyzed	08/22/2008 1613			
Sulfate	25	U	mg/L		25	5.0	375.4
	Anly Batch: 680-115641		Date Analyzed	08/27/2008 1320			
Total Organic Carbon	6.7		mg/L		1.0	1.0	415.1
	Anly Batch: 680-115918		Date Analyzed	08/29/2008 0331			

Analyte	Result	Qual	Units		RL	Dil	Method
Alkalinity	690		mg/L		1.0	1.0	310.1
	Anly Batch: 680-115260		Date Analyzed	08/22/2008 1326			
Carbon Dioxide, Free	48	B	mg/L		1.0	1.0	310.1
	Anly Batch: 680-115260		Date Analyzed	08/22/2008 1326			

Client Sample ID: **CPAMW03-F(0.2)-0808**

Lab Sample ID: 680-39748-3
Client Matrix: Water

Date Sampled: 08/21/2008 1050
Date Received: 08/22/2008 0854

Analyte	Result	Qual	Units		RL	Dil	Method
Dissolved Organic Carbon-D	6.0		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116700		Date Analyzed	08/29/2008 0303			

General Chemistry

Client Sample ID: **BSAMW02-0808**

Lab Sample ID: 680-39748-4
Client Matrix: Water

Date Sampled: 08/21/2008 1515
Date Received: 08/22/2008 0854

Analyte	Result	Qual	Units		RL	Dil	Method
Chloride	98		mg/L		2.0	2.0	325.2
	Anly Batch: 680-115635		Date Analyzed	08/27/2008 1049			
Nitrate as N	0.050	U	mg/L		0.050	1.0	353.2
	Anly Batch: 680-115431		Date Analyzed	08/22/2008 1613			
Sulfate	130		mg/L		25	5.0	375.4
	Anly Batch: 680-115641		Date Analyzed	08/27/2008 1250			
Total Organic Carbon	5.4		mg/L		1.0	1.0	415.1
	Anly Batch: 680-115918		Date Analyzed	08/29/2008 0241			

Analyte	Result	Qual	Units		RL	Dil	Method
Alkalinity	710		mg/L		1.0	1.0	310.1
	Anly Batch: 680-115260		Date Analyzed	08/22/2008 1337			
Carbon Dioxide, Free	26	B	mg/L		1.0	1.0	310.1
	Anly Batch: 680-115260		Date Analyzed	08/22/2008 1337			

Client Sample ID: **BSAMW02-F(0.2)-0808**

Lab Sample ID: 680-39748-5
Client Matrix: Water

Date Sampled: 08/21/2008 1515
Date Received: 08/22/2008 0854

Analyte	Result	Qual	Units		RL	Dil	Method
Dissolved Organic Carbon-D	4.3		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116700		Date Analyzed	08/29/2008 0303			

DATA REPORTING QUALIFIERS

Client: URS Corporation

Job Number: 680-39728-1
Sdg Number: KPS044

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	E	Result exceeded calibration range, secondary dilution required.
	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
GC VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
Metals		
	U	Indicates the analyte was analyzed for but not detected.
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
General Chemistry		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

SDG KPS045

Results of Samples from Wells:

BSAMW01
BSAMW03
BSAMW04
CPAMW01
CPAMW02
CPAMW04
CPAMW05

Solutia Krummrich Data Review

Laboratory SDG: KPS045

Reviewer: Tony Sedlacek

Date Reviewed: 10/29/2008

Guidance: USEPA National Functional Guidelines for Organic Data Review 1999. USEPA National Functional Guidelines for Inorganic Data Review 2004.

Applicable Work Plan: Long-Term Monitoring Program 2008

Sample Identification #	Sample Identification #
Trip Blank-03	BSMW04-0808
BSMW04-F(0.2)-0808	CPAMW04-0808
CPAMW04-F(0.2)-0808	BSAMW03-0808
BSAMW03-F(0.2)-0808	BSAMW03-0808-EB
BSAMW03-F(0.2)-0808-EB	Trip Blank-04
CPAMW05-0808	CPAMW05-F(0.2)-0808
BSAMW01-0808	BSAMW01-F(0.2)-0808
CPAMW01-0808	CPAMW01-F(0.2)-0808
CPAMW02-0808	CPAMW02-F(0.2)-0808
CPAMW02-0808-AD	CPAMW02-F(0.2)-0808-AD

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that methane, total and dissolved metals and general chemistry analytes were detected equipment blank and carbon dioxide was detected in the method blank. SVOC surrogates and MS/MSD recoveries were outside evaluation criteria. Methane and ethane were qualified due to field duplicate RPD greater than 25%. These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated that one out of three trip blank vials was received by the laboratory with headspace. One of the other two vials was used for VOC analysis. Two out of three vials for sample BSAMW01-0808 was received by the laboratory with effervescence. The remaining vial was used for VOC analysis. Three out of three vials for sample CPAMW01-0808 were received by the laboratory without hydrochloric acid preservation. Samples were analyzed within the shortened holding time. No qualifications of data were required.

3.0 Holding Times

Were samples extracted/analyzed within QAPP limits?

Yes

Field ID	Parameter	Analyte	Qualification
N/A			

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration	Units
BSAMW03-0808-EB	Dissolved Gasses	Methane	0.39	µg/L
BSAMW03-0808-EB	Total Metals	Iron	0.055	mg/L
BSAMW03-F(0.2)-0808-EB	Dissolved Metals	Iron	0.30	mg/L
BSAMW03-F(0.2)-0808-EB	Dissolved Metals	Manganese	0.013	mg/L
BSAMW03-0808-EB	General chemistry	Chloride	11	mg/L
MB 680-115861	General chemistry	Carbon dioxide	3.0	mg/L
MB 680-115862	General chemistry	Carbon dioxide	1.4	mg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported nondetect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification. In addition, samples were not qualified due to carbon dioxide since carbon dioxide in the air is very soluble in water and the method blank results are not representative of the site.

Field ID	Parameter	Analyte	New RL	Qualification
N/A				

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

LCS ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/RPD Criteria
N/A					

Analytical data that required qualification based on LCS data are included in the table below. Analytical data which were reported as nondetect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Field ID	Parameter	Analyte	Qualification
N/A			

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Field ID	Parameter	Surrogate	Recovery	Criteria
BSAMW04-0808	SVOCs	2-Fluorobiphenyl	**49**	50-113
CPAMW01-0808	SVOCs	2-Fluorophenol	**116**	36-110

Analytical data that required qualification based on surrogate data are included in the table below. Analytical data which were reported as nondetect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Surrogate recoveries outside evaluation criteria and associated with quality control sample did not require evaluation or qualification. Since only one base and one acid fraction surrogates were outside and Functional Guidelines indicates to qualify data if two or more surrogates per SVOC fraction are outside criteria, no qualification of the SVOC data was required.

Field ID	Parameter	Analyte	Qualification
N/A			

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples reported as part of this SDG?

Yes, sample BSAMW04-0808 was spiked and analyzed for SVOCs and sulfate. Sample CPAMW05-0808 was spiked and analyzed for SVOCs and total and dissolved iron and manganese.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery	RPD	MS/MSD/RPD Criteria
BSAMW04-0808	SVOCs	1,4-Dioxane	**0/0**	**42**	11-110/40

Analytical data that required qualification based on MS/MSD data are included in the table below. The MS/MSD recoveries for inorganic compounds with sample concentrations greater than four times (4X) the matrix spike concentration did not require evaluation or qualification. USEPA National Functional Guidelines for Organic Data Review indicates that organic data should not be qualified based on MS/MSD data alone and LCS recoveries were within evaluation criteria, therefore no qualification of the data was required.

Field ID	Parameter	Analyte	Qualification
N/A			

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

Field ID	Parameter	Analyte	IS Area Recovery	IS Criteria
N/A				

Analytical data that required qualification based on IS data are included in the table below.

Field ID	Parameter	Analyte	Qualification
N/A			

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

Yes, sample BSAMW04-0808 was duplicated and analyzed for alkalinity and carbon dioxide. Sample BSAMW03-0808-EB was duplicated and analyzed for nitrate.

Were laboratory duplicate sample RPDs within criteria?

Yes

Field ID	Parameter	Analyte	RPD	Criteria
N/A				

Data qualified due to outlying laboratory duplicate recoveries are identified below:

Field ID	Parameter	Analyte	Qualification
N/A			

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
CPAMW02-0808	CPAMW02-0808-AD
CPAMW02-F(0.2)-0808	CPAMW02-F(0.2)-0808-AD

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
CPAMW02-0808	CPAMW02-0808-AD	Dissolved Gasses	Ethane	**164**	**J**
CPAMW02-0808	CPAMW02-0808-AD	Dissolved Gasses	Methane	**175**	**J**

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Analytes were detected in samples that were diluted.

The following table identifies the analyses which were reported as nondetect, diluted, and an undiluted run ***was not*** reported:

Field ID	Parameter	Dilution Factor
N/A		

12.0 Additional Qualifications

Were additional qualifications applied?

No

SAMPLE SUMMARY

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-39835-1EB	Trip Blank-03	Water	08/25/2008 0000	08/26/2008 0900
680-39835-2	BSAMW04-0808	Water	08/25/2008 0915	08/26/2008 0900
680-39835-3	BSAMW04-F(0.2)-0808	Water	08/25/2008 0915	08/26/2008 0900
680-39835-4	CPAMW04-0808	Water	08/25/2008 1035	08/26/2008 0900
680-39835-5	CPAMW04-F(0.2)-0808	Water	08/25/2008 1035	08/26/2008 0900
680-39835-6	BSAMW03-0808	Water	08/25/2008 1335	08/26/2008 0900
680-39835-7	BSAMW03-F(0.2)-0808	Water	08/25/2008 1335	08/26/2008 0900
680-39835-8EB	BSAMW03-0808-EB	Water	08/25/2008 1515	08/26/2008 0900
680-39835-9EB	BSAMW03-F(0.2)-0808-EB	Water	08/25/2008 1515	08/26/2008 0900
680-39874-1TB	Trip Blank-04	Water	08/26/2008 0000	08/27/2008 0905
680-39874-2	CPAMW05-0808	Water	08/26/2008 0935	08/27/2008 0905
680-39874-3	CPAMW05-F(0.2)-0808	Water	08/26/2008 0935	08/27/2008 0905
680-39874-4	BSAMW01-0808	Water	08/26/2008 1140	08/27/2008 0905
680-39874-5	BSAMW01-F(0.2)0808	Water	08/26/2008 1140	08/27/2008 0905
680-39874-6	CPAMW01-0808	Water	08/26/2008 1405	08/27/2008 0905
680-39874-7	CPAMW01-F(0.2)-0808	Water	08/26/2008 1405	08/27/2008 0905
680-39874-8	CPAMW02-0808	Water	08/26/2008 1745	08/27/2008 0905
680-39874-9	CPAMW02-F(0.2)-0808	Water	08/26/2008 1745	08/27/2008 0905
680-39874-10FD	CPAMW02-0808-AD	Water	08/26/2008 1745	08/27/2008 0905
680-39874-11FD	CPAMW02-F(0.2) -0808-AD	Water	08/26/2008 1745	08/27/2008 0905

SAMPLE RESULTS

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **Trip Blank-03**

Lab Sample ID: 680-39835-1EB
Client Matrix: Water

Date Sampled: 08/25/2008 0000
Date Received: 08/26/2008 0900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 09/04/2008 1511
Date Prepared: 09/04/2008 1511

Analysis Batch: 680-116309

Instrument ID: GC/MS Volatiles - O
Lab File ID: o4783.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	91	75 - 120
Dibromofluoromethane	85	75 - 121
Toluene-d8 (Surr)	103	75 - 120

* Do not use this data. Use all other data.

Analytical Data

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW04-0808**

Lab Sample ID: 680-39835-2
Client Matrix: Water

Date Sampled: 08/25/2008 0915
Date Received: 08/26/2008 0900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 09/04/2008 1540
Date Prepared: 09/04/2008 1540

Analysis Batch: 680-116309

Instrument ID: GC/MS Volatiles - O
Lab File ID: o4785.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	48		10
* ~~Chlorobenzene~~	~~2600~~	~~E~~	~~10~~
1,2-Dichlorobenzene	13		10
1,3-Dichlorobenzene	10	U	10
1,4-Dichlorobenzene	49		10

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	94	75 - 120
Dibromofluoromethane	80	75 - 121
Toluene-d8 (Surr)	103	75 - 120

* Use this data only. All other data was reported from the 10 x dilution analysis.

Analytical Data

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW04-0808**

Lab Sample ID: 680-39835-2
Client Matrix: Water

Date Sampled: 08/25/2008 0915
Date Received: 08/26/2008 0900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 20
Date Analyzed: 09/04/2008 1932
Date Prepared: 09/04/2008 1932

Analysis Batch: 680-116309
Run Type: DL

Instrument ID: GC/MS Volatiles - O
Lab File ID: o4801.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	52	D	20
* Chlorobenzene	2600	D	20
1,2-Dichlorobenzene	20	U	20
1,3-Dichlorobenzene	20	U	20
1,4-Dichlorobenzene	47	D	20

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	93	75 - 120
Dibromofluoromethane	79	75 - 121
Toluene-d8 (Surr)	104	75 - 120

* Do not use this data. Use all other data

Analytical Data

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW04-0808**

Lab Sample ID: 680-39835-4
Client Matrix: Water

Date Sampled: 08/25/2008 1035
Date Received: 08/26/2008 0900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 09/04/2008 1609
Date Prepared: 09/04/2008 1609

Analysis Batch: 680-116309

Instrument ID: GC/MS Volatiles - O
Lab File ID: o4787.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
* Benzene	660	E	2.0
* Chlorobenzene	940	E	2.0
1,2-Dichlorobenzene	4.4		2.0
1,3-Dichlorobenzene	2.0	U	2.0
1,4-Dichlorobenzene	5.9		2.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	94	75 - 120
Dibromofluoromethane	77	75 - 121
Toluene-d8 (Surr)	104	75 - 120

* Use this data only. All other data was reported from the 2x dilution analysis.

Analytical Data

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW04-0808**

Lab Sample ID: 680-39835-4
Client Matrix: Water

Date Sampled: 08/25/2008 1035
Date Received: 08/26/2008 0900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 09/04/2008 2001
Date Prepared: 09/04/2008 2001

Analysis Batch: 680-116309
Run Type: DL

Instrument ID: GC/MS Volatiles - O
Lab File ID: o4803.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
* Benzene	610	D	10
* Chlorobenzene	870	D	10
1,2-Dichlorobenzene	10	U	10
1,3-Dichlorobenzene	10	U	10
1,4-Dichlorobenzene	10	U	10

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	90	75 - 120
Dibromofluoromethane	79	75 - 121
Toluene-d8 (Surr)	105	75 - 120

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW03-0808**

Lab Sample ID: 680-39835-6
Client Matrix: Water

Date Sampled: 08/25/2008 1335
Date Received: 08/26/2008 0900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 09/04/2008 1638
Date Prepared: 09/04/2008 1638

Analysis Batch: 680-116309

Instrument ID: GC/MS Volatiles - O
Lab File ID: o4789.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	30		10
Chlorobenzene	1500		10
1,2-Dichlorobenzene	23		10
1,3-Dichlorobenzene	14		10
1,4-Dichlorobenzene	340		10

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	94	75 - 120
Dibromofluoromethane	78	75 - 121
Toluene-d8 (Surr)	105	75 - 120

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW03-0808-EB**

Lab Sample ID: 680-39835-8EB
Client Matrix: Water

Date Sampled: 08/25/2008 1515
Date Received: 08/26/2008 0900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 09/08/2008 1803
Date Prepared: 09/08/2008 1803

Analysis Batch: 680-116598

Instrument ID: GC/MS Volatiles - O
Lab File ID: o4859.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	91	75 - 120
Dibromofluoromethane	100	75 - 121
Toluene-d8 (Surr)	100	75 - 120

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **Trip Blank-04**

Lab Sample ID: 680-39874-1TB
Client Matrix: Water

Date Sampled: 08/26/2008 0000
Date Received: 08/27/2008 0905

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/28/2008 1418
Date Prepared: 08/28/2008 1418

Analysis Batch: 680-115840

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2396.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	99	75 - 120
Dibromofluoromethane	112	75 - 121
Toluene-d8 (Surr)	103	75 - 120

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW05-0808**

Lab Sample ID: 680-39874-2
Client Matrix: Water

Date Sampled: 08/26/2008 0935
Date Received: 08/27/2008 0905

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 08/28/2008 1447
Date Prepared: 08/28/2008 1447

Analysis Batch: 680-115840

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2398.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	5.0	U	5.0
Chlorobenzene	850		5.0
1,2-Dichlorobenzene	6.1		5.0
1,3-Dichlorobenzene	5.0	U	5.0
1,4-Dichlorobenzene	5.2		5.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	102	75 - 120
Dibromofluoromethane	113	75 - 121
Toluene-d8 (Surr)	105	75 - 120

* Do not use this data. Use all other data.

Analytical Data

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW01-0808**

Lab Sample ID: 680-39874-4
Client Matrix: Water

Date Sampled: 08/26/2008 1140
Date Received: 08/27/2008 0905

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 5000
Date Analyzed: 08/28/2008 1716
Date Prepared: 08/28/2008 1716

Analysis Batch: 680-115840

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2408.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
* Benzene	1100000	E	5000
Chlorobenzene	5000	U	5000
1,2-Dichlorobenzene	5000	U	5000
1,3-Dichlorobenzene	5000	U	5000
1,4-Dichlorobenzene	5000	U	5000

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	100	75 - 120
Dibromofluoromethane	110	75 - 121
Toluene-d8 (Surr)	107	75 - 120

* Use this data only. All other data was reported from the 5000x dilution analysis.

Analytical Data

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW01-0808**

Lab Sample ID: 680-39874-4
Client Matrix: Water

Date Sampled: 08/26/2008 1140
Date Received: 08/27/2008 0905

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 10000
Date Analyzed: 08/28/2008 1915
Date Prepared: 08/28/2008 1915

Analysis Batch: 680-115840

Run Type: DL

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2416.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	1000000	D	10000
Chlorobenzene	10000	U	10000
1,2-Dichlorobenzene	10000	U	10000
1,3-Dichlorobenzene	10000	U	10000
1,4-Dichlorobenzene	10000	U	10000

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	101	75 - 120
Dibromofluoromethane	111	75 - 121
Toluene-d8 (Surr)	102	75 - 120

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW01-0808**

Lab Sample ID: 680-39874-6
Client Matrix: Water

Date Sampled: 08/26/2008 1405
Date Received: 08/27/2008 0905

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 200
Date Analyzed: 08/28/2008 1746
Date Prepared: 08/28/2008 1746

Analysis Batch: 680-115840

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2410.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	3100		200
Chlorobenzene	15000		200
1,2-Dichlorobenzene	22000		200
1,3-Dichlorobenzene	1400		200
1,4-Dichlorobenzene	12000		200

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	103	75 - 120
Dibromofluoromethane	112	75 - 121
Toluene-d8 (Surr)	104	75 - 120

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW02-0808**

Lab Sample ID: 680-39874-8
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 200
Date Analyzed: 08/28/2008 1815
Date Prepared: 08/28/2008 1815

Analysis Batch: 680-115840

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2412.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	3200		200
Chlorobenzene	33000		200
1,2-Dichlorobenzene	500		200
1,3-Dichlorobenzene	270		200
1,4-Dichlorobenzene	9100		200

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	104	75 - 120
Dibromofluoromethane	114	75 - 121
Toluene-d8 (Surr)	102	75 - 120

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW02-0808-AD**

Lab Sample ID: 680-39874-10FD
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 200
Date Analyzed: 08/28/2008 1845
Date Prepared: 08/28/2008 1845

Analysis Batch: 680-115840

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2414.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	2400		200
Chlorobenzene	27000		200
1,2-Dichlorobenzene	420		200
1,3-Dichlorobenzene	250		200
1,4-Dichlorobenzene	8000		200

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	100	75 - 120
Dibromofluoromethane	115	75 - 121
Toluene-d8 (Surr)	104	75 - 120

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW04-0808**

Lab Sample ID: 680-39835-2
Client Matrix: Water

Date Sampled: 08/25/2008 0915
Date Received: 08/26/2008 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/29/2008 1602
Date Prepared: 08/27/2008 1125

Analysis Batch: 680-115920
Prep Batch: 680-115582

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2135.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	15		9.7
4-Chloroaniline	19	U	19
1,4-Dioxane	33		9.7

Surrogate	%Rec		Acceptance Limits
Phenol-d5	54		38 - 116
2-Fluorophenol	49		36 - 110
2,4,6-Tribromophenol	84		40 - 139
Nitrobenzene-d5	62		45 - 112
2-Fluorobiphenyl	49	X	50 - 113
Terphenyl-d14	36		10 - 121

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW04-0808**

Lab Sample ID: 680-39835-4
Client Matrix: Water

Date Sampled: 08/25/2008 1035
Date Received: 08/26/2008 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/29/2008 1626
Date Prepared: 08/27/2008 1125

Analysis Batch: 680-115920
Prep Batch: 680-115582

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2136.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	9.7	U	9.7
4-Chloroaniline	98		19

Surrogate	%Rec	Acceptance Limits
Phenol-d5	65	38 - 116
2-Fluorophenol	56	36 - 110
2,4,6-Tribromophenol	94	40 - 139
Nitrobenzene-d5	71	45 - 112
2-Fluorobiphenyl	60	50 - 113
Terphenyl-d14	38	10 - 121

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW03-0808**

Lab Sample ID: 680-39835-6
Client Matrix: Water

Date Sampled: 08/25/2008 1335
Date Received: 08/26/2008 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/29/2008 1649
Date Prepared: 08/27/2008 1125

Analysis Batch: 680-115920
Prep Batch: 680-115582

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2137.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	11		9.7
4-Chloroaniline	19	U	19
1,4-Dioxane	9.7	U	9.7

Surrogate	%Rec	Acceptance Limits
Phenol-d5	54	38 - 116
2-Fluorophenol	46	36 - 110
2,4,6-Tribromophenol	79	40 - 139
Nitrobenzene-d5	59	45 - 112
2-Fluorobiphenyl	50	50 - 113
Terphenyl-d14	40	10 - 121

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW03-0808-EB**

Lab Sample ID: 680-39835-8EB
Client Matrix: Water

Date Sampled: 08/25/2008 1515
Date Received: 08/26/2008 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/29/2008 1712
Date Prepared: 08/27/2008 1125

Analysis Batch: 680-115920
Prep Batch: 680-115582

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2138.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	9.7	U	9.7
4-Chloroaniline	19	U	19
1,4-Dioxane	9.7	U	9.7

Surrogate	%Rec		Acceptance Limits
Phenol-d5	46		38 - 116
2-Fluorophenol	40		36 - 110
2,4,6-Tribromophenol	64		40 - 139
Nitrobenzene-d5	52		45 - 112
2-Fluorobiphenyl	44	X	50 - 113
Terphenyl-d14	16		10 - 121

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW05-0808**

Lab Sample ID: 680-39874-2
Client Matrix: Water

Date Sampled: 08/26/2008 0935
Date Received: 08/27/2008 0905

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 09/02/2008 1134
Date Prepared: 08/28/2008 1321

Analysis Batch: 680-116143
Prep Batch: 680-115711

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2153.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	10		9.7
4-Chloroaniline	19	U	19

Surrogate	%Rec	Acceptance Limits
Phenol-d5	62	38 - 116
2-Fluorophenol	55	36 - 110
2,4,6-Tribromophenol	91	40 - 139
Nitrobenzene-d5	76	45 - 112
2-Fluorobiphenyl	65	50 - 113
Terphenyl-d14	51	10 - 121

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW01-0808**

Lab Sample ID: 680-39874-4
Client Matrix: Water

Date Sampled: 08/26/2008 1140
Date Received: 08/27/2008 0905

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 09/02/2008 1243
Date Prepared: 08/28/2008 1321

Analysis Batch: 680-116143
Prep Batch: 680-115711

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2156.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	9.7	U	9.7
4-Chloroaniline	29		19

Surrogate	%Rec	Acceptance Limits
Phenol-d5	66	38 - 116
2-Fluorophenol	58	36 - 110
2,4,6-Tribromophenol	107	40 - 139
Nitrobenzene-d5	85	45 - 112
2-Fluorobiphenyl	63	50 - 113
Terphenyl-d14	42	10 - 121

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW01-0808**

Lab Sample ID: 680-39874-6
Client Matrix: Water

Date Sampled: 08/26/2008 1405
Date Received: 08/27/2008 0905

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 5.0
Date Analyzed: 09/02/2008 2005
Date Prepared: 08/28/2008 1321

Analysis Batch: 680-116143
Prep Batch: 680-115711

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2175.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	47	U	47
4-Chloroaniline	690		94

Surrogate	%Rec		Acceptance Limits
Phenol-d5	84		38 - 116
2-Fluorophenol	116	X	36 - 110
2,4,6-Tribromophenol	103		40 - 139
Nitrobenzene-d5	101		45 - 112
2-Fluorobiphenyl	82		50 - 113
Terphenyl-d14	15		10 - 121

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW02-0808**

Lab Sample ID: 680-39874-8
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 09/02/2008 1353
Date Prepared: 08/28/2008 1321

Analysis Batch: 680-116143
Prep Batch: 680-115711

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2159.d
Initial Weight/Volume: 1020 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	28		9.8
4-Chloroaniline	35		20

Surrogate	%Rec	Acceptance Limits
Phenol-d5	79	38 - 116
2-Fluorophenol	83	36 - 110
2,4,6-Tribromophenol	84	40 - 139
Nitrobenzene-d5	70	45 - 112
2-Fluorobiphenyl	58	50 - 113
Terphenyl-d14	40	10 - 121

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW02-0808-AD**

Lab Sample ID: 680-39874-10FD
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 09/02/2008 1416
Date Prepared: 08/28/2008 1321

Analysis Batch: 680-116143
Prep Batch: 680-115711

Instrument ID: GC/MS SemiVolatiles - F
Lab File ID: f2160.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorophenol	33		9.7
4-Chloroaniline	28		19

Surrogate	%Rec	Acceptance Limits
Phenol-d5	90	38 - 116
2-Fluorophenol	101	36 - 110
2,4,6-Tribromophenol	107	40 - 139
Nitrobenzene-d5	82	45 - 112
2-Fluorobiphenyl	71	50 - 113
Terphenyl-d14	46	10 - 121

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW04-0808**

Lab Sample ID: 680-39835-2
Client Matrix: Water

Date Sampled: 08/25/2008 0915
Date Received: 08/26/2008 0900

RSK-175 Dissolved Gases (GC)

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1853
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090204.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	8.5		0.35
Ethylene	0.33	U	0.33
Methane	170		0.19

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW04-0808**

Lab Sample ID: 680-39835-4
Client Matrix: Water

Date Sampled: 08/25/2008 1035
Date Received: 08/26/2008 0900

RSK-175 Dissolved Gases (GC)

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1905
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090205.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	25		0.35
Ethylene	0.33	U	0.33

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1905
Date Prepared: N/A

Analysis Batch: 680-116197

Instrument ID: GC Volatiles - U TCD
Lab File ID: U090205.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Methane	12000		0.19

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW03-0808**

Lab Sample ID: 680-39835-6
Client Matrix: Water

Date Sampled: 08/25/2008 1335
Date Received: 08/26/2008 0900

RSK-175 Dissolved Gases (GC)

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1918
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090206.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	2.3		0.35
Ethylene	0.80		0.33
Methane	250		0.19

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW03-0808-EB**

Lab Sample ID: 680-39835-8EB
Client Matrix: Water

Date Sampled: 08/25/2008 1515
Date Received: 08/26/2008 0900

RSK-175 Dissolved Gases (GC)

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1931
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090207.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	0.35	U	0.35
Ethylene	0.33	U	0.33
Methane	0.39		0.19

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW05-0808**

Lab Sample ID: 680-39874-2
Client Matrix: Water

Date Sampled: 08/26/2008 0935
Date Received: 08/27/2008 0905

RSK-175 Dissolved Gases (GC)

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1944
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090208.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	8.9		0.35
Ethylene	0.33	U	0.33
Methane	55		0.19

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW01-0808**

Lab Sample ID: 680-39874-4
Client Matrix: Water

Date Sampled: 08/26/2008 1140
Date Received: 08/27/2008 0905

RSK-175 Dissolved Gases (GC)

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1957
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090209.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	0.35	U	0.35
Ethylene	0.33	U	0.33

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 1957
Date Prepared: N/A

Analysis Batch: 680-116197

Instrument ID: GC Volatiles - U TCD
Lab File ID: U090209.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Methane	10000		0.19

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW01-0808**

Lab Sample ID: 680-39874-6
Client Matrix: Water

Date Sampled: 08/26/2008 1405
Date Received: 08/27/2008 0905

RSK-175 Dissolved Gases (GC)

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 2009
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090210.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	72		0.35
Ethylene	0.33	U	0.33

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 2009
Date Prepared: N/A

Analysis Batch: 680-116197

Instrument ID: GC Volatiles - U TCD
Lab File ID: U090210.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Methane	21000		0.19

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW02-0808**

Lab Sample ID: 680-39874-8
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

RSK-175 Dissolved Gases (GC)

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 2022
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090211.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	22	"J"	0.35
Ethylene	0.33	U	0.33

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 2022
Date Prepared: N/A

Analysis Batch: 680-116197

Instrument ID: GC Volatiles - U TCD
Lab File ID: U090211.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Methane	7400	"J"	0.19

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW02-0808-AD**

Lab Sample ID: 680-39874-10FD
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

RSK-175 Dissolved Gases (GC)

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 2035
Date Prepared: N/A

Analysis Batch: 680-116196

Instrument ID: GC Volatiles - U FID
Lab File ID: U090212.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	2.2	"J"	0.35
Ethylene	0.33	U	0.33

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 09/02/2008 2035
Date Prepared: N/A

Analysis Batch: 680-116197

Instrument ID: GC Volatiles - U TCD
Lab File ID: U090212.D
Initial Weight/Volume: 1000 uL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Methane	490	"J"	0.19

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW04-0808**

Lab Sample ID:	680-39835-2	Date Sampled:	08/25/2008 0915
Client Matrix:	Water	Date Received:	08/26/2008 0900

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-115764		Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115597		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	08/27/2008 2257			Final Weight/Volume:	50 mL
Date Prepared:	08/27/2008 1003				

Analyte	Result (mg/L)	Qualifier	RL
Iron	9.6		0.050
Manganese	0.66		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW04-F(0.2)-0808**

Lab Sample ID: 680-39835-3
Client Matrix: Water

Date Sampled: 08/25/2008 0915
Date Received: 08/26/2008 0900

6010B Metals (ICP)-Dissolved

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 08/27/2008 2302
Date Prepared: 08/27/2008 1003

Analysis Batch: 680-115764
Prep Batch: 680-115597

Instrument ID: ICP/AES - D
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	9.3		0.050
Manganese, Dissolved	0.65		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW04-0808**

Lab Sample ID: 680-39835-4
Client Matrix: Water

Date Sampled: 08/25/2008 1035
Date Received: 08/26/2008 0900

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-115764	Instrument ID: ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115597	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	08/27/2008 2307		Final Weight/Volume: 50 mL
Date Prepared:	08/27/2008 1003		

Analyte	Result (mg/L)	Qualifier	RL
Iron	13		0.050
Manganese	0.30		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW04-F(0.2)-0808**

Lab Sample ID: 680-39835-5
Client Matrix: Water

Date Sampled: 08/25/2008 1035
Date Received: 08/26/2008 0900

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 680-115764		Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115597		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	08/27/2008 2313			Final Weight/Volume:	50 mL
Date Prepared:	08/27/2008 1003				

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	12		0.050
Manganese, Dissolved	0.28		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW03-0808**

Lab Sample ID: 680-39835-6
Client Matrix: Water

Date Sampled: 08/25/2008 1335
Date Received: 08/26/2008 0900

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-115764		Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115597		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	08/27/2008 2328			Final Weight/Volume:	50 mL
Date Prepared:	08/27/2008 1003				

Analyte	Result (mg/L)	Qualifier	RL
Iron	12		0.050
Manganese	0.59		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW03-F(0.2)-0808**

Lab Sample ID: 680-39835-7
Client Matrix: Water

Date Sampled: 08/25/2008 1335
Date Received: 08/26/2008 0900

6010B Metals (ICP)-Dissolved

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 08/27/2008 2333
Date Prepared: 08/27/2008 1003

Analysis Batch: 680-115764
Prep Batch: 680-115597

Instrument ID: ICP/AES - D
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	9.9		0.050
Manganese, Dissolved	0.52		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW03-0808-EB**

Lab Sample ID: 680-39835-8EB
Client Matrix: Water

Date Sampled: 08/25/2008 1515
Date Received: 08/26/2008 0900

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-115764		Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115597		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	08/27/2008 2339			Final Weight/Volume:	50 mL
Date Prepared:	08/27/2008 1003				

Analyte	Result (mg/L)	Qualifier	RL
Iron	0.055		0.050
Manganese	0.010	U	0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW03-F(0.2)-0808-EB**

Lab Sample ID: 680-39835-9EB
Client Matrix: Water

Date Sampled: 08/25/2008 1515
Date Received: 08/26/2008 0900

6010B Metals (ICP)-Dissolved

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 08/27/2008 2344
Date Prepared: 08/27/2008 1003

Analysis Batch: 680-115764
Prep Batch: 680-115597

Instrument ID: ICP/AES - D
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	0.30		0.050
Manganese, Dissolved	0.013		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW05-0808**

Lab Sample ID: 680-39874-2
Client Matrix: Water

Date Sampled: 08/26/2008 0935
Date Received: 08/27/2008 0905

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-116014		Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115822		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	08/29/2008 2139			Final Weight/Volume:	50 mL
Date Prepared:	08/28/2008 1705				

Analyte	Result (mg/L)	Qualifier	RL
Iron	100		0.050
Manganese	2.9		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW05-F(0.2)-0808**

Lab Sample ID: 680-39874-3
Client Matrix: Water

Date Sampled: 08/26/2008 0935
Date Received: 08/27/2008 0905

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 680-116014		Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115822		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	08/29/2008 2215			Final Weight/Volume:	50 mL
Date Prepared:	08/28/2008 1705				

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	99		0.050
Manganese, Dissolved	2.8		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW01-0808**

Lab Sample ID: 680-39874-4
Client Matrix: Water

Date Sampled: 08/26/2008 1140
Date Received: 08/27/2008 0905

6010B Metals (ICP)-Total Recoverable

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 08/29/2008 2220
Date Prepared: 08/28/2008 1705

Analysis Batch: 680-116014
Prep Batch: 680-115822

Instrument ID: ICP/AES - D
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	RL
Iron	3.0		0.050
Manganese	0.51		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **BSAMW01-F(0.2)0808**

Lab Sample ID: 680-39874-5
Client Matrix: Water

Date Sampled: 08/26/2008 1140
Date Received: 08/27/2008 0905

6010B Metals (ICP)-Dissolved

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 08/29/2008 2226
Date Prepared: 08/28/2008 1705

Analysis Batch: 680-116014
Prep Batch: 680-115822

Instrument ID: ICP/AES - D
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	1.2		0.050
Manganese, Dissolved	0.47		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW01-0808**

Lab Sample ID: 680-39874-6
Client Matrix: Water

Date Sampled: 08/26/2008 1405
Date Received: 08/27/2008 0905

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-116014	Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115822	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	08/29/2008 2231		Final Weight/Volume:	50 mL
Date Prepared:	08/28/2008 1705			

Analyte	Result (mg/L)	Qualifier	RL
Iron	2.6		0.050
Manganese	0.19		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW01-F(0.2)-0808**

Lab Sample ID: 680-39874-7
Client Matrix: Water

Date Sampled: 08/26/2008 1405
Date Received: 08/27/2008 0905

6010B Metals (ICP)-Dissolved

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 08/29/2008 2236
Date Prepared: 08/28/2008 1705

Analysis Batch: 680-116014
Prep Batch: 680-115822

Instrument ID: ICP/AES - D
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	1.8		0.050
Manganese, Dissolved	0.14		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW02-0808**

Lab Sample ID: 680-39874-8
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

6010B Metals (ICP)-Total Recoverable

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 08/29/2008 2241
Date Prepared: 08/28/2008 1705

Analysis Batch: 680-116014
Prep Batch: 680-115822

Instrument ID: ICP/AES - D
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	RL
Iron	5.8		0.050
Manganese	0.36		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW02-F(0.2)-0808**

Lab Sample ID: 680-39874-9
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 680-116014	Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115822	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	08/29/2008 2246		Final Weight/Volume:	50 mL
Date Prepared:	08/28/2008 1705			

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	5.5		0.050
Manganese, Dissolved	0.34		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW02-0808-AD**

Lab Sample ID: 680-39874-10FD
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-116014	Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115822	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	08/29/2008 2252		Final Weight/Volume:	50 mL
Date Prepared:	08/28/2008 1705			

Analyte	Result (mg/L)	Qualifier	RL
Iron	6.3		0.050
Manganese	0.39		0.010

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Client Sample ID: **CPAMW02-F(0.2)-0808-AD**

Lab Sample ID: 680-39874-11FD
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 680-116014	Instrument ID:	ICP/AES - D
Preparation:	3005A	Prep Batch: 680-115822	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	08/29/2008 2257		Final Weight/Volume:	50 mL
Date Prepared:	08/28/2008 1705			

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	5.9		0.050
Manganese, Dissolved	0.37		0.010

General Chemistry

Client Sample ID: **BSAMW04-0808**

Lab Sample ID: 680-39835-2
Client Matrix: Water

Date Sampled: 08/25/2008 0915
Date Received: 08/26/2008 0900

Analyte	Result	Qual	Units		RL	Dil	Method
Chloride	120		mg/L		2.0	2.0	325.2
	Anly Batch: 680-115635		Date Analyzed	08/27/2008 1049			
Nitrate as N	0.050	U	mg/L		0.050	1.0	353.2
	Anly Batch: 680-115564		Date Analyzed	08/26/2008 1507			
Sulfate	85		mg/L		25	5.0	375.4
	Anly Batch: 680-116743		Date Analyzed	09/09/2008 1628			
Total Organic Carbon	4.7		mg/L		1.0	1.0	415.1
	Anly Batch: 680-117320		Date Analyzed	09/15/2008 1126			

Analyte	Result	Qual	Units		RL	Dil	Method
Alkalinity	660		mg/L		1.0	1.0	310.1
	Anly Batch: 680-115861		Date Analyzed	08/28/2008 1300			
Carbon Dioxide, Free	27	B	mg/L		1.0	1.0	310.1
	Anly Batch: 680-115861		Date Analyzed	08/28/2008 1300			

Client Sample ID: **BSAMW04-F(0.2)-0808**

Lab Sample ID: 680-39835-3
Client Matrix: Water

Date Sampled: 08/25/2008 0915
Date Received: 08/26/2008 0900

Analyte	Result	Qual	Units		RL	Dil	Method
Dissolved Organic Carbon-D	4.0		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116697		Date Analyzed	09/08/2008 1910			

General Chemistry

Client Sample ID: **CPAMW04-0808**

Lab Sample ID: 680-39835-4
Client Matrix: Water

Date Sampled: 08/25/2008 1035
Date Received: 08/26/2008 0900

Analyte	Result	Qual	Units		RL	Dil	Method
Chloride	280		mg/L		5.0	5.0	325.2
	Anly Batch: 680-115635		Date Analyzed	08/27/2008 1105			
Nitrate as N	0.050	U	mg/L		0.050	1.0	353.2
	Anly Batch: 680-115564		Date Analyzed	08/26/2008 1507			
Sulfate	5.0	U	mg/L		5.0	1.0	375.4
	Anly Batch: 680-116743		Date Analyzed	09/09/2008 1548			
Total Organic Carbon	5.8		mg/L		1.0	1.0	415.1
	Anly Batch: 680-117320		Date Analyzed	09/15/2008 1157			

Analyte	Result	Qual	Units		RL	Dil	Method
Alkalinity	830		mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1335			
Carbon Dioxide, Free	27	B	mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1335			

Client Sample ID: **CPAMW04-F(0.2)-0808**

Lab Sample ID: 680-39835-5
Client Matrix: Water

Date Sampled: 08/25/2008 1035
Date Received: 08/26/2008 0900

Analyte	Result	Qual	Units		RL	Dil	Method
Dissolved Organic Carbon-D	5.1		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116697		Date Analyzed	09/08/2008 1910			

General Chemistry

Client Sample ID: **BSAMW03-0808**

Lab Sample ID: 680-39835-6
Client Matrix: Water

Date Sampled: 08/25/2008 1335
Date Received: 08/26/2008 0900

Analyte	Result	Qual	Units		RL	Dil	Method
Chloride	82		mg/L		1.0	1.0	325.2
	Anly Batch: 680-115635		Date Analyzed	08/27/2008 1039			
Nitrate as N	0.050	U	mg/L		0.050	1.0	353.2
	Anly Batch: 680-115564		Date Analyzed	08/26/2008 1507			
Sulfate	230		mg/L		50	10	375.4
	Anly Batch: 680-116743		Date Analyzed	09/09/2008 1656			
Total Organic Carbon	5.2		mg/L		1.0	1.0	415.1
	Anly Batch: 680-117320		Date Analyzed	09/15/2008 1211			

Analyte	Result	Qual	Units		RL	Dil	Method
Alkalinity	500		mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1345			
Carbon Dioxide, Free	19	B	mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1345			

Client Sample ID: **BSAMW03-F(0.2)-0808**

Lab Sample ID: 680-39835-7
Client Matrix: Water

Date Sampled: 08/25/2008 1335
Date Received: 08/26/2008 0900

Analyte	Result	Qual	Units		RL	Dil	Method
Dissolved Organic Carbon-D	4.3		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116697		Date Analyzed	09/08/2008 1910			

General Chemistry

Client Sample ID: **BSAMW03-0808-EB**

Lab Sample ID: 680-39835-8EB
Client Matrix: Water

Date Sampled: 08/25/2008 1515
Date Received: 08/26/2008 0900

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	11		mg/L	1.0	1.0	325.2
Anly Batch: 680-115635	Date Analyzed	08/27/2008 1039				
Nitrate as N	0.050	U	mg/L	0.050	1.0	353.2
Anly Batch: 680-115564	Date Analyzed	08/26/2008 1507				
Sulfate	5.0	U	mg/L	5.0	1.0	375.4
Anly Batch: 680-116743	Date Analyzed	09/09/2008 1548				
Total Organic Carbon	1.0	U	mg/L	1.0	1.0	415.1
Anly Batch: 680-117320	Date Analyzed	09/15/2008 1226				

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	1.0	U	mg/L	1.0	1.0	310.1
Anly Batch: 680-115862	Date Analyzed	08/28/2008 1349				
Carbon Dioxide, Free	1.0	U	mg/L	1.0	1.0	310.1
Anly Batch: 680-115862	Date Analyzed	08/28/2008 1349				

Client Sample ID: **BSAMW03-F(0.2)-0808-EB**

Lab Sample ID: 680-39835-9EB
Client Matrix: Water

Date Sampled: 08/25/2008 1515
Date Received: 08/26/2008 0900

Analyte	Result	Qual	Units	RL	Dil	Method
Dissolved Organic Carbon-D	1.0	U	mg/L	1.0	1.0	415.1
Anly Batch: 680-116697	Date Analyzed	09/08/2008 1910				

General Chemistry

Client Sample ID: **CPAMW05-0808**

Lab Sample ID: 680-39874-2
Client Matrix: Water

Date Sampled: 08/26/2008 0935
Date Received: 08/27/2008 0905

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	300		mg/L	5.0	5.0	325.2
Anly Batch: 680-115946	Date Analyzed	08/29/2008 1311				
Nitrate as N	0.50	U	mg/L	0.50	10	353.2
Anly Batch: 680-115812	Date Analyzed	08/27/2008 1642				
Sulfate	1600		mg/L	250	50	375.4
Anly Batch: 680-116743	Date Analyzed	09/09/2008 1706				
Total Organic Carbon	3.9		mg/L	1.0	1.0	415.1
Anly Batch: 680-116544	Date Analyzed	09/03/2008 1103				

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	320		mg/L	1.0	1.0	310.1
Anly Batch: 680-115862	Date Analyzed	08/28/2008 1526				
Carbon Dioxide, Free	51	B	mg/L	1.0	1.0	310.1
Anly Batch: 680-115862	Date Analyzed	08/28/2008 1526				

Client Sample ID: **CPAMW05-F(0.2)-0808**

Lab Sample ID: 680-39874-3
Client Matrix: Water

Date Sampled: 08/26/2008 0935
Date Received: 08/27/2008 0905

Analyte	Result	Qual	Units	RL	Dil	Method
Dissolved Organic Carbon-D	3.5		mg/L	1.0	1.0	415.1
Anly Batch: 680-116697	Date Analyzed	09/08/2008 1910				

General Chemistry

Client Sample ID: **BSAMW01-0808**

Lab Sample ID: 680-39874-4
Client Matrix: Water

Date Sampled: 08/26/2008 1140
Date Received: 08/27/2008 0905

Analyte	Result	Qual	Units		RL	Dil	Method
Chloride	95		mg/L		1.0	1.0	325.2
	Anly Batch: 680-115946		Date Analyzed	08/29/2008 1252			
Nitrate as N	0.050	U	mg/L		0.050	1.0	353.2
	Anly Batch: 680-115812		Date Analyzed	08/27/2008 1447			
Sulfate	130		mg/L		25	5.0	375.4
	Anly Batch: 680-116743		Date Analyzed	09/09/2008 1626			
Total Organic Carbon	8.8		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116544		Date Analyzed	09/03/2008 1103			

Analyte	Result	Qual	Units		RL	Dil	Method
Alkalinity	870		mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1539			
Carbon Dioxide, Free	21	B	mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1539			

Client Sample ID: **BSAMW01-F(0.2)0808**

Lab Sample ID: 680-39874-5
Client Matrix: Water

Date Sampled: 08/26/2008 1140
Date Received: 08/27/2008 0905

Analyte	Result	Qual	Units		RL	Dil	Method
Dissolved Organic Carbon-D	7.6		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116697		Date Analyzed	09/08/2008 1910			

General Chemistry

Client Sample ID: **CPAMW01-0808**

Lab Sample ID: 680-39874-6
Client Matrix: Water

Date Sampled: 08/26/2008 1405
Date Received: 08/27/2008 0905

Analyte	Result	Qual	Units		RL	Dil	Method
Chloride	200		mg/L		2.0	2.0	325.2
	Anly Batch: 680-115946		Date Analyzed	08/29/2008 1256			
Nitrate as N	0.50	U	mg/L		0.50	10	353.2
	Anly Batch: 680-115812		Date Analyzed	08/27/2008 1510			
Sulfate	14		mg/L		5.0	1.0	375.4
	Anly Batch: 680-116743		Date Analyzed	09/09/2008 1550			
Total Organic Carbon	16		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116544		Date Analyzed	09/03/2008 1103			

Analyte	Result	Qual	Units		RL	Dil	Method
Alkalinity	1200		mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1553			
Carbon Dioxide, Free	1.0	U	mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1553			

Client Sample ID: **CPAMW01-F(0.2)-0808**

Lab Sample ID: 680-39874-7
Client Matrix: Water

Date Sampled: 08/26/2008 1405
Date Received: 08/27/2008 0905

Analyte	Result	Qual	Units		RL	Dil	Method
Dissolved Organic Carbon-D	13		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116697		Date Analyzed	09/08/2008 1910			

General Chemistry

Client Sample ID: **CPAMW02-0808**

Lab Sample ID: 680-39874-8
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

Analyte	Result	Qual	Units		RL	Dil	Method
Chloride	130		mg/L		2.0	2.0	325.2
	Anly Batch: 680-115946		Date Analyzed	08/29/2008 1256			
Nitrate as N	0.050	U	mg/L		0.050	1.0	353.2
	Anly Batch: 680-115812		Date Analyzed	08/27/2008 1510			
Sulfate	5.0	U	mg/L		5.0	1.0	375.4
	Anly Batch: 680-116743		Date Analyzed	09/09/2008 1552			
Total Organic Carbon	12		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116544		Date Analyzed	09/03/2008 1103			

Analyte	Result	Qual	Units		RL	Dil	Method
Alkalinity	640		mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1604			
Carbon Dioxide, Free	18	B	mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1604			

Client Sample ID: **CPAMW02-F(0.2)-0808**

Lab Sample ID: 680-39874-9
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

Analyte	Result	Qual	Units		RL	Dil	Method
Dissolved Organic Carbon-D	10		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116697		Date Analyzed	09/08/2008 1910			

General Chemistry

Client Sample ID: **CPAMW02-0808-AD**

Lab Sample ID: 680-39874-10FD
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

Analyte	Result	Qual	Units		RL	Dil	Method
Chloride	130		mg/L		2.0	2.0	325.2
	Anly Batch: 680-115946		Date Analyzed	08/29/2008 1256			
Nitrate as N	0.050	U	mg/L		0.050	1.0	353.2
	Anly Batch: 680-115812		Date Analyzed	08/27/2008 1510			
Sulfate	5.0	U	mg/L		5.0	1.0	375.4
	Anly Batch: 680-116743		Date Analyzed	09/09/2008 1552			
Total Organic Carbon	11		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116544		Date Analyzed	09/03/2008 1103			

Analyte	Result	Qual	Units		RL	Dil	Method
Alkalinity	640		mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1359			
Carbon Dioxide, Free	21	B	mg/L		1.0	1.0	310.1
	Anly Batch: 680-115862		Date Analyzed	08/28/2008 1359			

Client Sample ID: **CPAMW02-F(0.2)-0808-AD**

Lab Sample ID: 680-39874-11FD
Client Matrix: Water

Date Sampled: 08/26/2008 1745
Date Received: 08/27/2008 0905

Analyte	Result	Qual	Units		RL	Dil	Method
Dissolved Organic Carbon-D	9.9		mg/L		1.0	1.0	415.1
	Anly Batch: 680-116697		Date Analyzed	09/08/2008 1910			

DATA REPORTING QUALIFIERS

Client: URS Corporation

Job Number: 680-39835-1
Sdg Number: KPS045

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	E	Result exceeded calibration range, secondary dilution required.
	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	F	RPD of the MS and MSD exceeds the control limits
	X	Surrogate exceeds the control limits
GC VOA		
	U	Indicates the analyte was analyzed for but not detected.
Metals		
	U	Indicates the analyte was analyzed for but not detected.
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
General Chemistry		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Appendix F
Surface Water and Sediment Analytical Results
(and Data Review Sheets)

SDG KRS003

Results of Samples from Surface Water Locations:

R2007-1
R2007-2
R2007-3

Solutia Krummrich Data Review

Laboratory SDG: KRS003

Reviewer: Tony Sedlacek

Date Reviewed: 10/30/2008

Guidance: USEPA National Functional Guidelines for Organic Data Review 1999.

Applicable Work Plan: Long-Term Monitoring Program 2008

Sample Identification #	Sample Identification #
R2007-1-0808	R2007-2-0808
R2007-3-0808	R2007-3-0808-AD
R2007-3-0808-EB	TB1

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

The laboratory and cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within QAPP limits?

Yes

Field ID	Parameter	Analyte	Qualification
N/A			

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

Blank ID	Parameter	Analyte	Concentration	Units
N/A				

Qualifications due to blank contamination are included in the table below. Analytical data that were reported nondetect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification.

Field ID	Parameter	Analyte	New RL	Qualification
N/A				

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

LCS ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/RPD Criteria
N/A					

Analytical data that required qualification based on LCS data are included in the table below. Analytical data which were reported as nondetect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Field ID	Parameter	Analyte	Qualification
N/A			

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

Field ID	Parameter	Surrogate	Recovery	Criteria
N/A				

Analytical data that required qualification based on surrogate data are included in the table below.

Field ID	Parameter	Analyte	Qualification
N/A			

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples reported as part of this SDG?

Yes, sample R2007-1-0808 was spiked and analyzed for VOCs and SVOCs.

Were MS/MSD recoveries within evaluation criteria?

Yes

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery	RPD	MS/MSD/RPD Criteria
N/A					

Analytical data that required qualification based on MS/MSD data are included in the table below.

Field ID	Parameter	Analyte	Qualification
N/A			

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

Field ID	Parameter	Analyte	IS Area Recovery	IS Criteria
N/A				

Analytical data that required qualification based on IS data are included in the table below.

Field ID	Parameter	Analyte	Qualification
N/A			

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

Were laboratory duplicate sample RPDs within criteria?

N/A

Field ID	Parameter	Analyte	RPD	Criteria
N/A				

Data qualified due to outlying laboratory duplicate recoveries are identified below:

Field ID	Parameter	Analyte	Qualification
N/A			

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
R2007-3-0808	R2007-3-0808-AD

Were field duplicates within evaluation criteria?

Yes

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
N/A					

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Samples were not analyzed at a dilution.

The following table identifies the analyses which were reported as nondetect, diluted, and an undiluted run ***was not*** reported:

Field ID	Parameter	Dilution Factor
N/A		

12.0 Additional Qualifications

Were additional qualifications applied?

No

SAMPLE SUMMARY

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-39643-1	R2007-1-0808	Water	08/18/2008 1420	08/19/2008 0857
680-39643-1MS	R2007-1-0808	Water	08/18/2008 1420	08/19/2008 0857
680-39643-1MSD	R2007-1-0808	Water	08/18/2008 1420	08/19/2008 0857
680-39643-3	R2007-2-0808	Water	08/18/2008 1615	08/19/2008 0857
680-39643-5	R2007-3-0808	Water	08/18/2008 1655	08/19/2008 0857
680-39643-6FD	R2007-3-0808-AD	Water	08/18/2008 1655	08/19/2008 0857
680-39643-9EB	R2007-3-0808-EB	Water	08/18/2008 1750	08/19/2008 0857
680-39643-10TB	TB 1	Water	08/18/2008 0000	08/19/2008 0857

SAMPLE RESULTS

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Client Sample ID: **R2007-1-0808**

Lab Sample ID: 680-39643-1
Client Matrix: Water

Date Sampled: 08/18/2008 1420
Date Received: 08/19/2008 0857

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/28/2008 1348
Date Prepared: 08/28/2008 1348

Analysis Batch: 680-115840

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2394.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U	0.32	1.0
Chlorobenzene	1.0	U	0.34	1.0
1,2-Dichlorobenzene	1.0	U	0.33	1.0
1,3-Dichlorobenzene	1.0	U	0.31	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	103	75 - 120
Dibromofluoromethane	112	75 - 121
Toluene-d8 (Surr)	101	75 - 120

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Client Sample ID: **R2007-2-0808**

Lab Sample ID: 680-39643-3
Client Matrix: Water

Date Sampled: 08/18/2008 1615
Date Received: 08/19/2008 0857

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/27/2008 1951
Date Prepared: 08/27/2008 1951

Analysis Batch: 680-115677

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2368.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U	0.32	1.0
Chlorobenzene	1.0	U	0.34	1.0
1,2-Dichlorobenzene	1.0	U	0.33	1.0
1,3-Dichlorobenzene	1.0	U	0.31	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	102	75 - 120
Dibromofluoromethane	117	75 - 121
Toluene-d8 (Surr)	103	75 - 120

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Client Sample ID: **R2007-3-0808**

Lab Sample ID: 680-39643-5
Client Matrix: Water

Date Sampled: 08/18/2008 1655
Date Received: 08/19/2008 0857

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/27/2008 2021
Date Prepared: 08/27/2008 2021

Analysis Batch: 680-115677

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2370.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U	0.32	1.0
Chlorobenzene	1.0	U	0.34	1.0
1,2-Dichlorobenzene	1.0	U	0.33	1.0
1,3-Dichlorobenzene	1.0	U	0.31	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	101	75 - 120
Dibromofluoromethane	116	75 - 121
Toluene-d8 (Surr)	100	75 - 120

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Client Sample ID: **R2007-3-0808-AD**

Lab Sample ID: 680-39643-6FD
Client Matrix: Water

Date Sampled: 08/18/2008 1655
Date Received: 08/19/2008 0857

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/27/2008 2050
Date Prepared: 08/27/2008 2050

Analysis Batch: 680-115677

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2372.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U	0.32	1.0
Chlorobenzene	1.0	U	0.34	1.0
1,2-Dichlorobenzene	1.0	U	0.33	1.0
1,3-Dichlorobenzene	1.0	U	0.31	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	100	75 - 120
Dibromofluoromethane	116	75 - 121
Toluene-d8 (Surr)	107	75 - 120

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Client Sample ID: **R2007-3-0808-EB**

Lab Sample ID: 680-39643-9EB
Client Matrix: Water

Date Sampled: 08/18/2008 1750
Date Received: 08/19/2008 0857

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/27/2008 1822
Date Prepared: 08/27/2008 1822

Analysis Batch: 680-115677

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2362.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U	0.32	1.0
Chlorobenzene	1.0	U	0.34	1.0
1,2-Dichlorobenzene	1.0	U	0.33	1.0
1,3-Dichlorobenzene	1.0	U	0.31	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	101	75 - 120
Dibromofluoromethane	113	75 - 121
Toluene-d8 (Surr)	103	75 - 120

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Client Sample ID: **TB 1**

Lab Sample ID: 680-39643-10TB
Client Matrix: Water

Date Sampled: 08/18/2008 0000
Date Received: 08/19/2008 0857

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/27/2008 1851
Date Prepared: 08/27/2008 1851

Analysis Batch: 680-115677

Instrument ID: GC/MS Volatiles - P C2
Lab File ID: p2364.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U	0.32	1.0
Chlorobenzene	1.0	U	0.34	1.0
1,2-Dichlorobenzene	1.0	U	0.33	1.0
1,3-Dichlorobenzene	1.0	U	0.31	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	105	75 - 120
Dibromofluoromethane	114	75 - 121
Toluene-d8 (Surr)	104	75 - 120

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Client Sample ID: **R2007-1-0808**

Lab Sample ID: 680-39643-1
Client Matrix: Water

Date Sampled: 08/18/2008 1420
Date Received: 08/19/2008 0857

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/23/2008 1918
Date Prepared: 08/20/2008 1249

Analysis Batch: 680-115388
Prep Batch: 680-114941

Instrument ID: GC/MS SemiVolatiles - N
Lab File ID: n0430.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Chlorophenol	9.7	U	0.97	9.7
4-Chloroaniline	19	U	4.7	19
1,4-Dioxane	9.7	U	2.5	9.7
1,2,4-Trichlorobenzene	9.7	U	0.69	9.7

Surrogate	%Rec	Acceptance Limits
Phenol-d5	64	38 - 116
2-Fluorophenol	62	36 - 110
2,4,6-Tribromophenol	84	40 - 139
Nitrobenzene-d5	72	45 - 112
2-Fluorobiphenyl	77	50 - 113
Terphenyl-d14	37	10 - 121

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Client Sample ID: **R2007-2-0808**

Lab Sample ID: 680-39643-3
Client Matrix: Water

Date Sampled: 08/18/2008 1615
Date Received: 08/19/2008 0857

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/23/2008 1940
Date Prepared: 08/20/2008 1249

Analysis Batch: 680-115388
Prep Batch: 680-114941

Instrument ID: GC/MS SemiVolatiles - N
Lab File ID: n0431.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Chlorophenol	9.7	U	0.97	9.7
4-Chloroaniline	19	U	4.7	19
1,4-Dioxane	9.7	U	2.5	9.7
1,2,4-Trichlorobenzene	9.7	U	0.69	9.7

Surrogate	%Rec	Acceptance Limits
Phenol-d5	75	38 - 116
2-Fluorophenol	69	36 - 110
2,4,6-Tribromophenol	87	40 - 139
Nitrobenzene-d5	74	45 - 112
2-Fluorobiphenyl	74	50 - 113
Terphenyl-d14	36	10 - 121

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Client Sample ID: **R2007-3-0808**

Lab Sample ID: 680-39643-5
Client Matrix: Water

Date Sampled: 08/18/2008 1655
Date Received: 08/19/2008 0857

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/23/2008 2003
Date Prepared: 08/20/2008 1249

Analysis Batch: 680-115388
Prep Batch: 680-114941

Instrument ID: GC/MS SemiVolatiles - N
Lab File ID: n0432.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Chlorophenol	9.7	U	0.97	9.7
4-Chloroaniline	19	U	4.7	19
1,4-Dioxane	9.7	U	2.5	9.7
1,2,4-Trichlorobenzene	9.7	U	0.69	9.7

Surrogate	%Rec	Acceptance Limits
Phenol-d5	67	38 - 116
2-Fluorophenol	67	36 - 110
2,4,6-Tribromophenol	81	40 - 139
Nitrobenzene-d5	75	45 - 112
2-Fluorobiphenyl	77	50 - 113
Terphenyl-d14	36	10 - 121

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Client Sample ID: **R2007-3-0808-AD**

Lab Sample ID: 680-39643-6FD
Client Matrix: Water

Date Sampled: 08/18/2008 1655
Date Received: 08/19/2008 0857

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/23/2008 2155
Date Prepared: 08/20/2008 1249

Analysis Batch: 680-115388
Prep Batch: 680-114941

Instrument ID: GC/MS SemiVolatiles - N
Lab File ID: n0437.d
Initial Weight/Volume: 500 mL
Final Weight/Volume: 0.5 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Chlorophenol	10	U	1.0	10
4-Chloroaniline	20	U	4.8	20
1,4-Dioxane	10	U	2.6	10
1,2,4-Trichlorobenzene	10	U	0.71	10

Surrogate	%Rec	Acceptance Limits
Phenol-d5	66	38 - 116
2-Fluorophenol	61	36 - 110
2,4,6-Tribromophenol	76	40 - 139
Nitrobenzene-d5	71	45 - 112
2-Fluorobiphenyl	68	50 - 113
Terphenyl-d14	69	10 - 121

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Client Sample ID: **R2007-3-0808-EB**

Lab Sample ID: 680-39643-9EB
Client Matrix: Water

Date Sampled: 08/18/2008 1750
Date Received: 08/19/2008 0857

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 08/23/2008 2218
Date Prepared: 08/20/2008 1249

Analysis Batch: 680-115388
Prep Batch: 680-114941

Instrument ID: GC/MS SemiVolatiles - N
Lab File ID: n0438.d
Initial Weight/Volume: 500 mL
Final Weight/Volume: 0.5 mL
Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Chlorophenol	10	U	1.0	10
4-Chloroaniline	20	U	4.8	20
1,4-Dioxane	10	U	2.6	10
1,2,4-Trichlorobenzene	10	U	0.71	10

Surrogate	%Rec	Acceptance Limits
Phenol-d5	56	38 - 116
2-Fluorophenol	51	36 - 110
2,4,6-Tribromophenol	67	40 - 139
Nitrobenzene-d5	58	45 - 112
2-Fluorobiphenyl	56	50 - 113
Terphenyl-d14	52	10 - 121

DATA REPORTING QUALIFIERS

Client: Solutia Inc.

Job Number: 680-39643-1
Sdg Number: KRS003

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.

SDG KRS004

Results of Samples from Sediment Locations:

R2007-1
R2007-2
R2007-3

Solutia Krummrich Data Review

Laboratory SDG: KRS004

Reviewer: Tony Sedlacek

Date Reviewed: 10/30/2008

Guidance: USEPA National Functional Guidelines for Organic Data Review 1999.

Applicable Work Plan: Long-Term Monitoring Program 2008

Sample Identification #	Sample Identification #
R2007-1-0808	R2007-2-0808
R2007-3-0808	R2007-3-0808-AD

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

The laboratory and cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within QAPP limits?

Yes

Field ID	Parameter	Analyte	Qualification
N/A			

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

Blank ID	Parameter	Analyte	Concentration	Units
N/A				

Qualifications due to blank contamination are included in the table below. Analytical data that were reported nondetect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification.

Field ID	Parameter	Analyte	New RL	Qualification
N/A				

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

LCS ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/RPD Criteria
N/A					

Analytical data that required qualification based on LCS data are included in the table below. Analytical data which were reported as nondetect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Field ID	Parameter	Analyte	Qualification
N/A			

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

Field ID	Parameter	Surrogate	Recovery	Criteria
N/A				

Analytical data that required qualification based on surrogate data are included in the table below.

Field ID	Parameter	Analyte	Qualification
N/A			

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples reported as part of this SDG?

Yes, sample R2007-1-0808 was spiked and analyzed for VOCs and SVOCs.

Were MS/MSD recoveries within evaluation criteria?

Yes

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery	RPD	MS/MSD/RPD Criteria
N/A					

Analytical data that required qualification based on MS/MSD data are included in the table below.

Field ID	Parameter	Analyte	Qualification
N/A			

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

Field ID	Parameter	Analyte	IS Area Recovery	IS Criteria
N/A				

Analytical data that required qualification based on IS data are included in the table below.

Field ID	Parameter	Analyte	Qualification
N/A			

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

Were laboratory duplicate sample RPDs within criteria?

N/A

Field ID	Parameter	Analyte	RPD	Criteria
N/A				

Data qualified due to outlying laboratory duplicate recoveries are identified below:

Field ID	Parameter	Analyte	Qualification
N/A			

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
R2007-3-0808	R2007-3-0808-AD

Were field duplicates within evaluation criteria?

Yes

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
N/A					

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Samples were not analyzed at a dilution.

The following table identifies the analyses which were reported as nondetect, diluted, and an undiluted run ***was not*** reported:

Field ID	Parameter	Dilution Factor
N/A		

12.0 Additional Qualifications

Were additional qualifications applied?

No

SAMPLE SUMMARY

Client: Solutia Inc.

Job Number: 680-39643-2
Sdg Number: KRS004

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-39643-2	R2007-1-0808	Solid	08/18/2008 1430	08/19/2008 0857
680-39643-2MS	R2007-1-0808	Solid	08/18/2008 1430	08/19/2008 0857
680-39643-2MSD	R2007-1-0808	Solid	08/18/2008 1430	08/19/2008 0857
680-39643-4	R2007-2-0808	Solid	08/18/2008 1625	08/19/2008 0857
680-39643-7	R2007-3-0808	Solid	08/18/2008 1705	08/19/2008 0857
680-39643-8FD	R2007-3-0808-AD	Solid	08/18/2008 1705	08/19/2008 0857

SAMPLE RESULTS

Client: Solutia Inc.

Job Number: 680-39643-2
Sdg Number: KRS004

Client Sample ID: **R2007-1-0808**

Lab Sample ID: 680-39643-2
Client Matrix: Solid
% Moisture: 22.0
Date Sampled: 08/18/2008 1430
Date Received: 08/19/2008 0857

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 08/25/2008 1408
Date Prepared: 08/20/2008 1733
Analysis Batch: 680-115415
Prep Batch: 680-115038
Instrument ID: GC/MS Volatiles - M
Lab File ID: m0441.d
Initial Weight/Volume: 6.9 g
Final Weight/Volume: 5 g

Analyte	DryWt Corrected: Y Result (ug/Kg)	Qualifier	MDL	RL
Benzene	4.6	U	0.73	4.6
Chlorobenzene	4.6	U	0.68	4.6
1,2-Dichlorobenzene	4.6	U	0.60	4.6
1,3-Dichlorobenzene	4.6	U	0.77	4.6
1,4-Dichlorobenzene	4.6	U	0.47	4.6

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	107	65 - 124
Dibromofluoromethane	105	65 - 124
Toluene-d8 (Surr)	106	65 - 132

Client: Solutia Inc.

Job Number: 680-39643-2
Sdg Number: KRS004

Client Sample ID: **R2007-2-0808**

Lab Sample ID: 680-39643-4
Client Matrix: Solid
% Moisture: 17.9
Date Sampled: 08/18/2008 1625
Date Received: 08/19/2008 0857

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 08/23/2008 0133
Date Prepared: 08/20/2008 1733
Analysis Batch: 680-115323
Prep Batch: 680-115038
Instrument ID: GC/MS Volatiles - L
Lab File ID: l0918.d
Initial Weight/Volume: 6.2 g
Final Weight/Volume: 5 g

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		4.9	U	0.78	4.9
Chlorobenzene		4.9	U	0.72	4.9
1,2-Dichlorobenzene		4.9	U	0.64	4.9
1,3-Dichlorobenzene		4.9	U	0.82	4.9
1,4-Dichlorobenzene		4.9	U	0.50	4.9

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	90	65 - 124
Dibromofluoromethane	74	65 - 124
Toluene-d8 (Surr)	105	65 - 132

Client: Solutia Inc.

Job Number: 680-39643-2
Sdg Number: KRS004

Client Sample ID: **R2007-3-0808**

Lab Sample ID: 680-39643-7
Client Matrix: Solid
% Moisture: 4.6
Date Sampled: 08/18/2008 1705
Date Received: 08/19/2008 0857

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 08/23/2008 0154
Date Prepared: 08/20/2008 1733
Analysis Batch: 680-115323
Prep Batch: 680-115038
Instrument ID: GC/MS Volatiles - L
Lab File ID: l0919.d
Initial Weight/Volume: 5.5 g
Final Weight/Volume: 5 g

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		4.8	U	0.75	4.8
Chlorobenzene		4.4	J	0.70	4.8
1,2-Dichlorobenzene		4.8	U	0.62	4.8
1,3-Dichlorobenzene		4.8	U	0.79	4.8
1,4-Dichlorobenzene		4.8	U	0.49	4.8

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	89	65 - 124
Dibromofluoromethane	74	65 - 124
Toluene-d8 (Surr)	102	65 - 132

Client: Solutia Inc.

Job Number: 680-39643-2
Sdg Number: KRS004

Client Sample ID: **R2007-3-0808-AD**

Lab Sample ID: 680-39643-8FD
Client Matrix: Solid
% Moisture: 3.2
Date Sampled: 08/18/2008 1705
Date Received: 08/19/2008 0857

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 08/23/2008 0215
Date Prepared: 08/20/2008 1733
Analysis Batch: 680-115323
Prep Batch: 680-115038
Instrument ID: GC/MS Volatiles - L
Lab File ID: l0920.d
Initial Weight/Volume: 5.1 g
Final Weight/Volume: 5 g

Analyte	DryWt Corrected: Y Result (ug/Kg)	Qualifier	MDL	RL
Benzene	5.1	U	0.80	5.1
Chlorobenzene	1.2	J	0.74	5.1
1,2-Dichlorobenzene	5.1	U	0.66	5.1
1,3-Dichlorobenzene	5.1	U	0.84	5.1
1,4-Dichlorobenzene	5.1	U	0.52	5.1

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	85	65 - 124
Dibromofluoromethane	77	65 - 124
Toluene-d8 (Surr)	100	65 - 132

Client: Solutia Inc.

Job Number: 680-39643-2
Sdg Number: KRS004

Client Sample ID: **R2007-1-0808**

Lab Sample ID: 680-39643-2
Client Matrix: Solid
% Moisture: 22.0
Date Sampled: 08/18/2008 1430
Date Received: 08/19/2008 0857

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 08/22/2008 1858
Date Prepared: 08/20/2008 2015
Analysis Batch: 680-115255
Prep Batch: 680-115043
Instrument ID: GC/MS SemiVolatiles - N
Lab File ID: n0419.d
Initial Weight/Volume: 30.18 g
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Chloroaniline		840	U	22	840
2-Chlorophenol		420	U	22	420
1,4-Dioxane		420	U	110	420
1,2,4-Trichlorobenzene		420	U	22	420

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	62	44 - 110
2-Fluorophenol	61	41 - 110
Nitrobenzene-d5	57	36 - 110
Phenol-d5	62	43 - 110
Terphenyl-d14	72	10 - 112
2,4,6-Tribromophenol	65	36 - 128

Client: Solutia Inc.

Job Number: 680-39643-2
Sdg Number: KRS004

Client Sample ID: **R2007-2-0808**

Lab Sample ID: 680-39643-4
Client Matrix: Solid
% Moisture: 17.9
Date Sampled: 08/18/2008 1625
Date Received: 08/19/2008 0857

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 08/21/2008 1722
Date Prepared: 08/20/2008 2015
Analysis Batch: 680-115257
Prep Batch: 680-115043
Instrument ID: GC/MS SemiVolatiles - N
Lab File ID: n0385.d
Initial Weight/Volume: 30.31 g
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Chloroaniline		800	U	20	800
2-Chlorophenol		400	U	20	400
1,4-Dioxane		400	U	100	400
1,2,4-Trichlorobenzene		400	U	20	400

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	53	44 - 110
2-Fluorophenol	53	41 - 110
Nitrobenzene-d5	53	36 - 110
Phenol-d5	56	43 - 110
Terphenyl-d14	63	10 - 112
2,4,6-Tribromophenol	65	36 - 128

Client: Solutia Inc.

Job Number: 680-39643-2
Sdg Number: KRS004

Client Sample ID: **R2007-3-0808**

Lab Sample ID:	680-39643-7			Date Sampled:	08/18/2008 1705
Client Matrix:	Solid	% Moisture:	4.6	Date Received:	08/19/2008 0857

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 680-115255		Instrument ID:	GC/MS SemiVolatiles - N
Preparation:	3550B	Prep Batch: 680-115043		Lab File ID:	n0420.d
Dilution:	1.0			Initial Weight/Volume:	30.47 g
Date Analyzed:	08/22/2008 1921			Final Weight/Volume:	1 mL
Date Prepared:	08/20/2008 2015			Injection Volume:	1.0 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Chloroaniline		680	U	18	680
2-Chlorophenol		340	U	18	340
1,4-Dioxane		340	U	86	340
1,2,4-Trichlorobenzene		340	U	18	340

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	68	44 - 110
2-Fluorophenol	70	41 - 110
Nitrobenzene-d5	69	36 - 110
Phenol-d5	74	43 - 110
Terphenyl-d14	75	10 - 112
2,4,6-Tribromophenol	78	36 - 128

Client: Solutia Inc.

Job Number: 680-39643-2
Sdg Number: KRS004

Client Sample ID: **R2007-3-0808-AD**

Lab Sample ID: 680-39643-8FD
Client Matrix: Solid
% Moisture: 3.2
Date Sampled: 08/18/2008 1705
Date Received: 08/19/2008 0857

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 08/21/2008 1807
Date Prepared: 08/20/2008 2015
Analysis Batch: 680-115257
Prep Batch: 680-115043
Instrument ID: GC/MS SemiVolatiles - N
Lab File ID: n0387.d
Initial Weight/Volume: 30.04 g
Final Weight/Volume: 1 mL
Injection Volume: 1.0 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Chloroaniline		680	U	18	680
2-Chlorophenol		340	U	18	340
1,4-Dioxane		340	U	86	340
1,2,4-Trichlorobenzene		340	U	18	340

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	66	44 - 110
2-Fluorophenol	68	41 - 110
Nitrobenzene-d5	69	36 - 110
Phenol-d5	73	43 - 110
Terphenyl-d14	73	10 - 112
2,4,6-Tribromophenol	78	36 - 128

General Chemistry

Client Sample ID: **R2007-1-0808**

Lab Sample ID: 680-39643-2
Client Matrix: Solid

Date Sampled: 08/18/2008 1430
Date Received: 08/19/2008 0857

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	22		%	0.010	0.010	1.0	PercentMoisture
Anly Batch: 680-114969	Date Analyzed	08/20/2008 1019					

Client Sample ID: **R2007-2-0808**

Lab Sample ID: 680-39643-4
Client Matrix: Solid

Date Sampled: 08/18/2008 1625
Date Received: 08/19/2008 0857

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	18		%	0.010	0.010	1.0	PercentMoisture
Anly Batch: 680-114969	Date Analyzed	08/20/2008 1019					

Client Sample ID: **R2007-3-0808**

Lab Sample ID: 680-39643-7
Client Matrix: Solid

Date Sampled: 08/18/2008 1705
Date Received: 08/19/2008 0857

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.6		%	0.010	0.010	1.0	PercentMoisture
Anly Batch: 680-114969	Date Analyzed	08/20/2008 1019					

Client Sample ID: **R2007-3-0808-AD**

Lab Sample ID: 680-39643-8FD
Client Matrix: Solid

Date Sampled: 08/18/2008 1705
Date Received: 08/19/2008 0857

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.2		%	0.010	0.010	1.0	PercentMoisture
Anly Batch: 680-114969	Date Analyzed	08/20/2008 1019					

DATA REPORTING QUALIFIERS

Client: Solutia Inc.

Job Number: 680-39643-2
Sdg Number: KRS004

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.

Appendix G
Microbial Insights Data Package

2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone: (865) 573-8188
Fax: (865) 573-8133
Email: info@microbe.com

Lipid Analysis Report

Client: Thomas Adams
URS Corp
1001 Highlands Plaza Dr. West
Suite 300
St. Louis, MO 63110

Phone: 314.429.0100

Fax: 314.429.0462

MI Identifier: 057FI **Date Rec:** 09/26/2008 **Report Date:** 11/03/2008

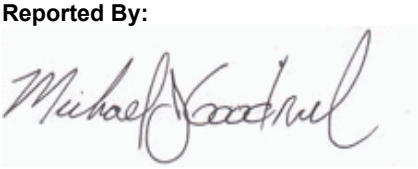
Client Project #: 21562048.00003 **Client Project Name:** W. G. Krummrich Long Term Monitoring

Purchase Order #:

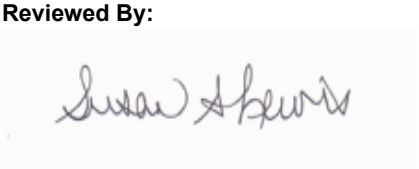
Analysis Requested: PLFA, PLFA+SIP

Comments:

Reported By:



Reviewed By:



MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: **URS Corp**
Project: W. G. Krummrich Long Term Monitoring

MI Project Number: **057FI**
Date Received: 09/26/2008

Sample Information

Sample Name:	**CPAMW01-0808**	**CPAMW02-0808**	**BSAMW01-0808**	**CPAMW03-0808 - 13C Chlorobenzene**	**CPAMW03-0808**
Sample Date:	09/25/2008	09/25/2008	09/25/2008	09/25/2008	09/25/2008
Sample Matrix:	beads	beads	beads	beads	beads
Biomass Concentrations					
Total Biomass (cells/bead)	**3.07E+04**	**1.63E+05**	**4.44E+05**	**9.1E+04**	**2.54E+04**
Community Structure (% total PLFA)					
Firmicutes (TerBrSats)	**0.00**	**2.29**	**3.29**	**0.00**	**3.51**
Proteobacteria (Monos)	**71.13**	**85.91**	**86.35**	**66.81**	**60.32**
Anaerobic metal reducers (BrMonos)	**3.17**	**0.00**	**0.00**	**0.00**	**0.00**
SRB/Actinomycetes (MidBrSats)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
General (Nsats)	**24.16**	**11.37**	**9.60**	**26.97**	**34.49**
Eukaryotes (polyenoics)	**1.53**	**0.42**	**0.75**	**6.22**	**1.69**
Physiological Status (Proteobacteria only)					
Slowed Growth	**0.00**	**0.12**	**0.08**	**0.95**	**0.56**
Decreased Permeability	**0.00**	**0.29**	**0.23**	**0.09**	**0.07**

Legend:
NA = Not Analyzed NS = Not Sampled

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: **URS Corp**
Project: W. G. Krummrich Long Term Monitoring

MI Project Number: **057FI**
Date Received: 09/26/2008

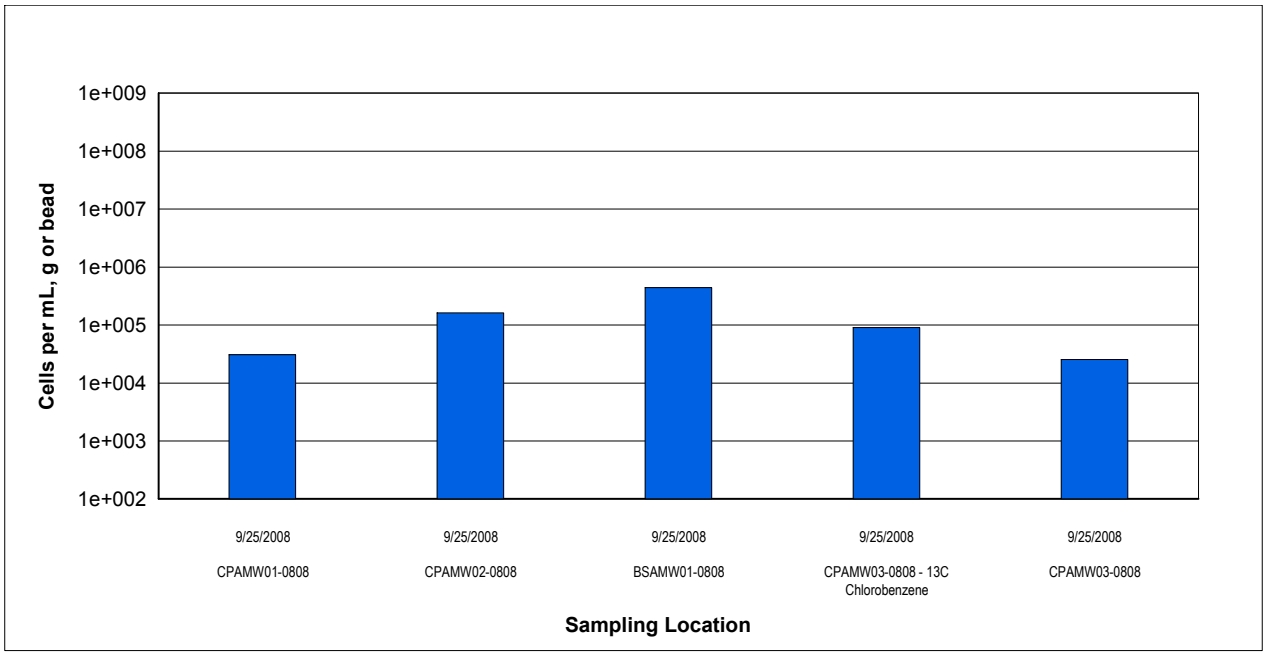


Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass (associated with higher organisms).

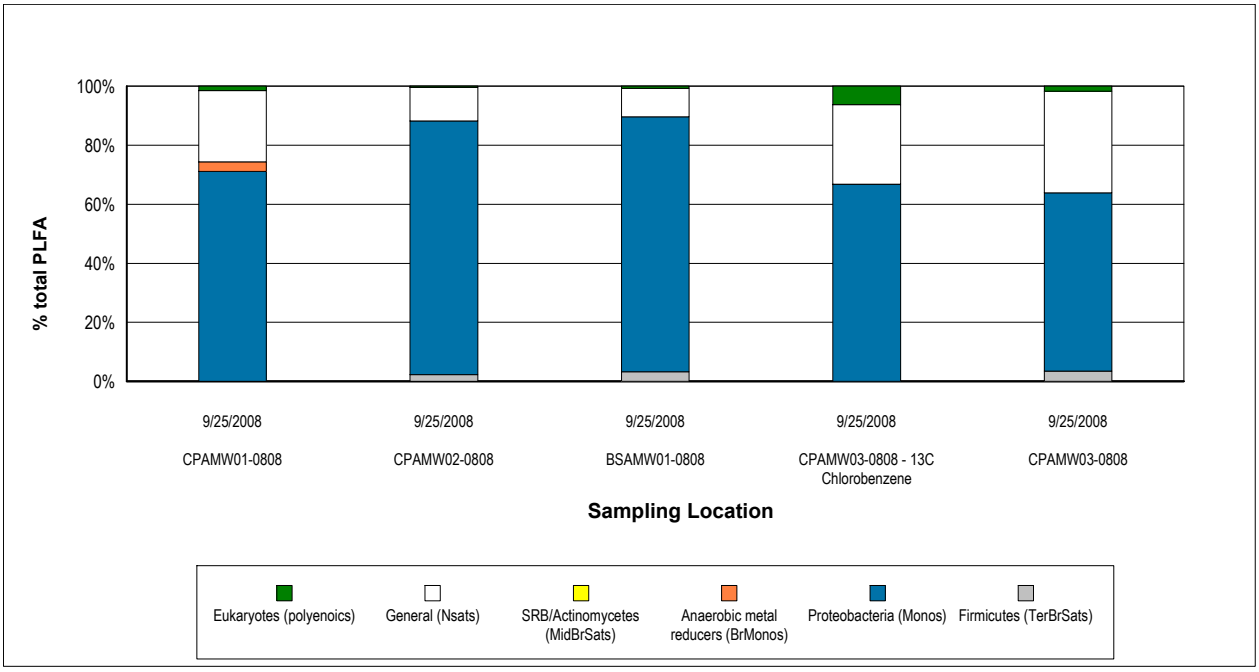


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis.

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: **URS Corp**
Project: W. G. Krummrich Long Term Monitoring

MI Project Number: **057FI**
Date Received: 09/26/2008

Sample Information

Sample Name:	**BSAMW02-0808 - 13C Benzene**	**BSAMW02-0808**	**BSAMW03-0808**	**BSAMW04-0808**	**BSAMW05-0808**
Sample Date:	09/25/2008	09/25/2008	09/25/2008	09/25/2008	09/25/2008
Sample Matrix:	beads	beads	beads	beads	beads
Biomass Concentrations					
Total Biomass (cells/bead)	**2.71E+05**	**3.69E+04**	**4.45E+04**	**1.02E+05**	**2.25E+04**
Community Structure (% total PLFA)					
Firmicutes (TerBrSats)	**5.21**	**3.68**	**0.00**	**0.00**	**0.00**
Proteobacteria (Monos)	**40.48**	**68.71**	**45.99**	**83.45**	**60.44**
Anaerobic metal reducers (BrMonos)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
SRB/Actinomycetes (MidBrSats)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
General (Nsats)	**18.09**	**27.61**	**53.11**	**15.91**	**35.80**
Eukaryotes (polyenoics)	**36.22**	**0.00**	**0.89**	**0.63**	**3.75**
Physiological Status (Proteobacteria only)					
Slowed Growth	**0.08**	**0.17**	**0.50**	**0.09**	**0.18**
Decreased Permeability	**0.08**	**0.08**	**0.00**	**0.17**	**0.00**

Legend:
NA = Not Analyzed NS = Not Sampled

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: **URS Corp**
Project: W. G. Krummrich Long Term Monitoring

MI Project Number: **057FI**
Date Received: 09/26/2008

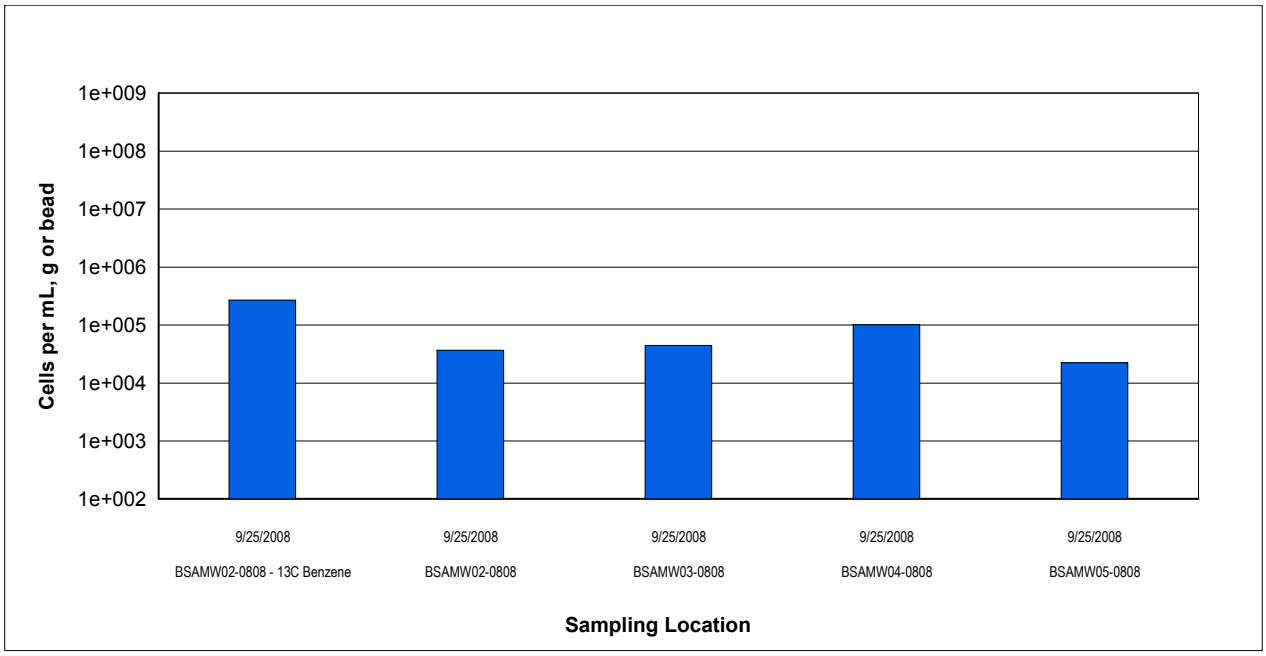


Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass (associated with higher organisms).

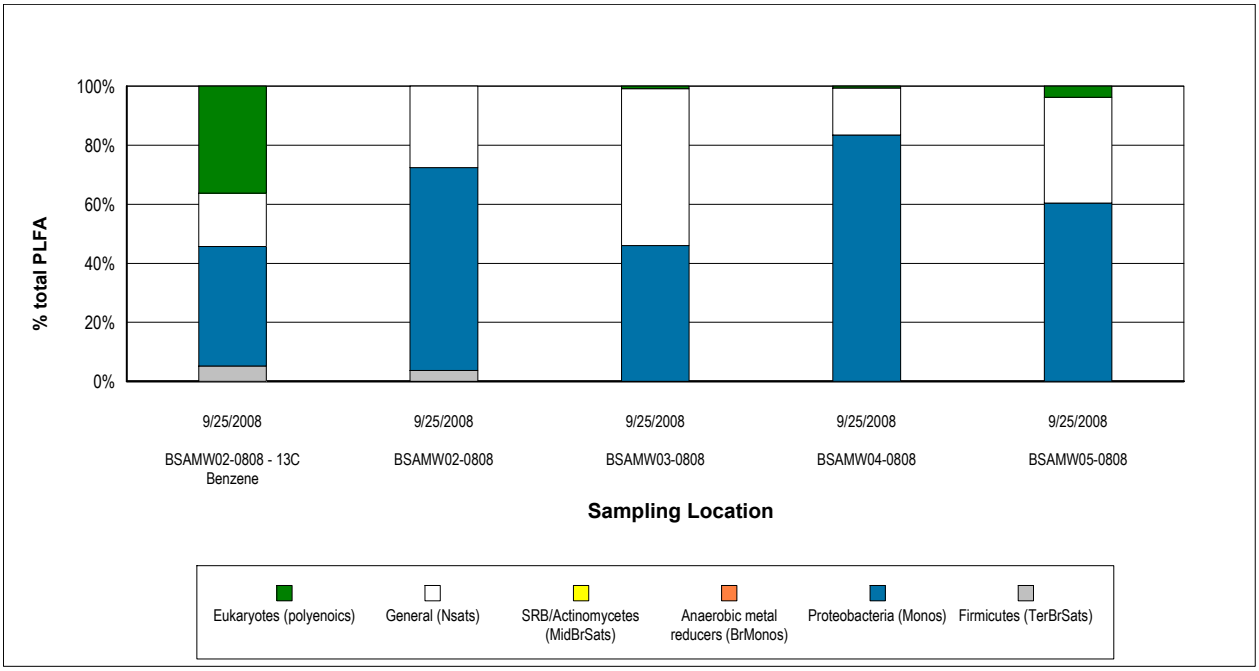


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis.

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: **URS Corp**
Project: W. G. Krummrich Long Term Monitoring

MI Project Number: **057FI**
Date Received: 09/26/2008

Sample Information

Sample Name:	**CPAMW05-0808**	**CPAMW04-0808**
Sample Date:	09/25/2008	09/25/2008
Sample Matrix:	beads	beads

Biomass Concentrations

Total Biomass (cells/bead)	**1E+06**	**8.52E+05**

Community Structure (% total PLFA)

Firmicutes (TerBrSats)	**1.96**	**1.99**
Proteobacteria (Monos)	**87.92**	**87.39**
Anaerobic metal reducers (BrMonos)	**0.00**	**0.00**
SRB/Actinomycetes (MidBrSats)	**0.00**	**0.00**
General (Nsats)	**9.40**	**9.94**
Eukaryotes (polyenoics)	**0.75**	**0.67**

Physiological Status (Proteobacteria only)

Slowed Growth	**0.07**	**0.02**
Decreased Permeability	**0.37**	**0.32**

Legend:
NA = Not Analyzed NS = Not Sampled

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: **URS Corp**
Project: W. G. Krummrich Long Term Monitoring

MI Project Number: **057FI**
Date Received: 09/26/2008

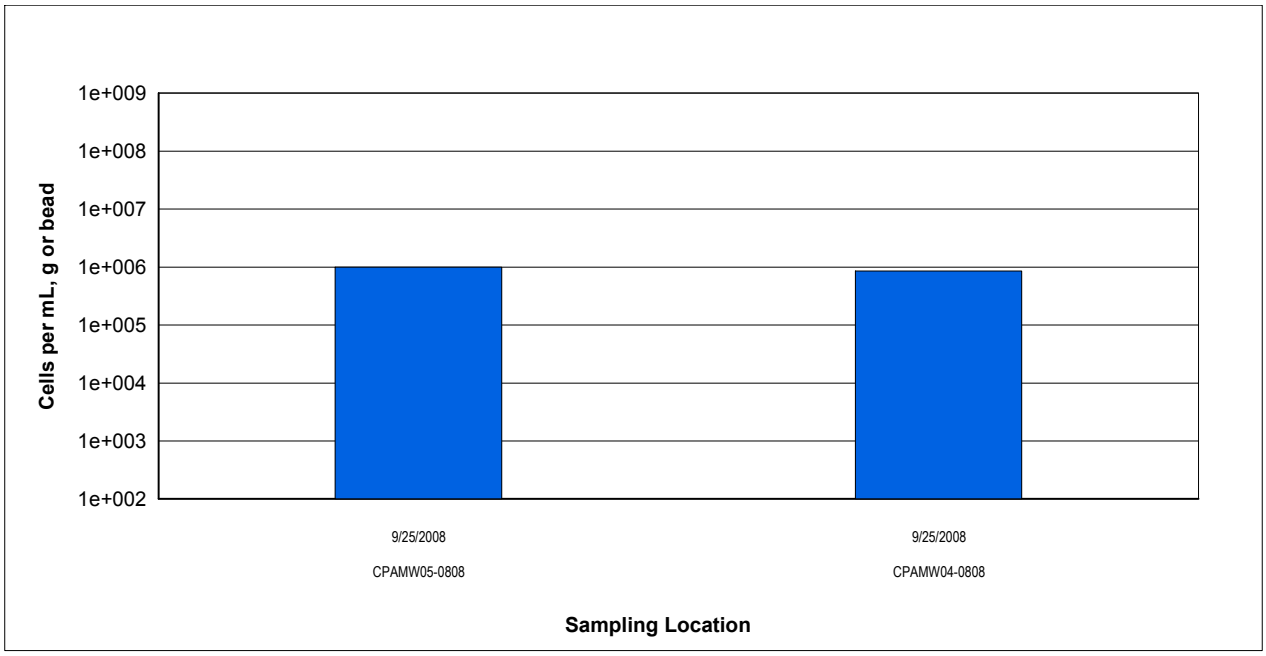


Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass (associated with higher organisms).

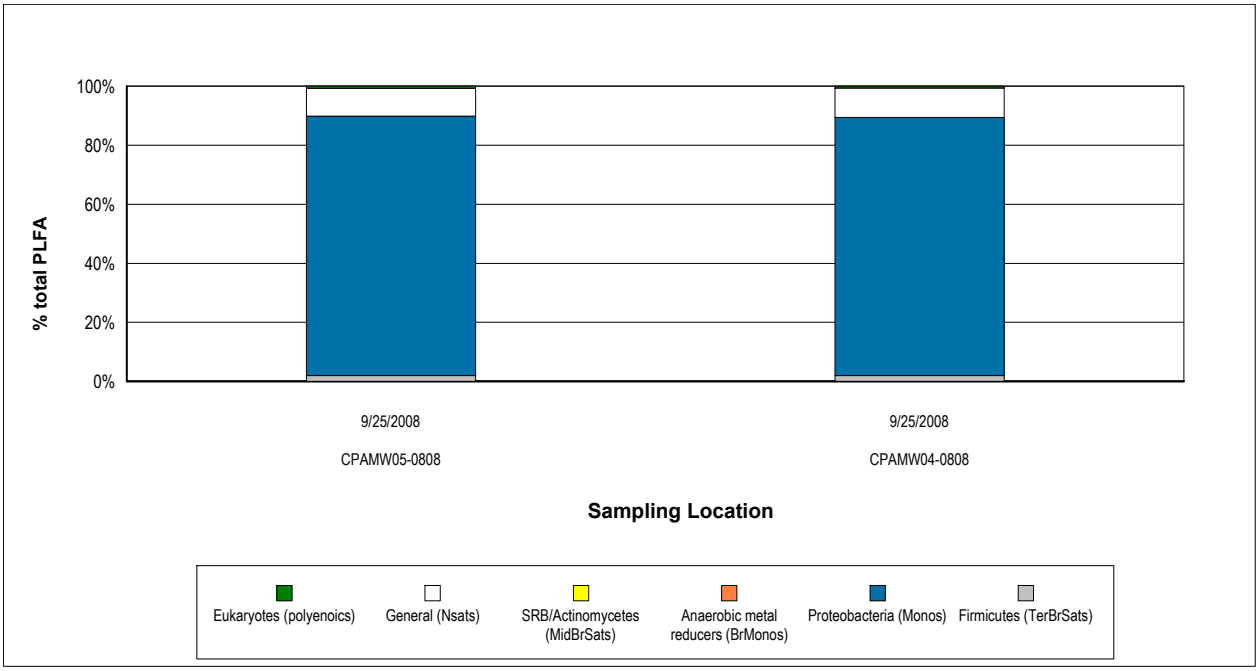


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis.

MICROBIAL INSIGHTS, INC.

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Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA+SIP

Client: **URS Corp**
Project: W. G. Krummrich Long Term Monitoring

MI Project Number: **057FI**
Date Received: 09/26/2008

Sample Information

Sample Name:	**CPAMW03-0808 - 13C Chlorobenzene**	**BSAMW02-0808 - 13C Benzene**
Sample Date:	09/25/2008	09/25/2008
Sample Matrix:	beads	beads

Biomass Concentrations

Total Biomass (cells/bead)	**9.1E+04**	**2.71E+05**
13C Enriched Biomass (cells/bead)	**0E+00**	**3.29E+03**
% 13C Incorporation	**0.00%**	**1.21%**

Contaminant Concentrations

Benzene Pre-deployment (mg/bd)		**0.83**
Benzene Post-deployment (mg/bd)		**0.50**
Chlorobenzene Pre-deployment (mg/bd)	**0.49**	**- -**
Chlorobenzene Post-deployment (mg/bd)	**0.18**	**- -**
% loss	**63.00%**	**40.00%**
First Order Degradation Rate	**0.033**	**0.017**

Community Structure (% total PLFA)

Firmicutes (TerBrSats)	**0.00**	**5.21**
Proteobacteria (Monos)	**66.81**	**40.48**
Anaerobic metal reducers (BrMonos)	**0.00**	**0.00**
SRB/Actinomycetes (MidBrSats)	**0.00**	**0.00**
General (Nsats)	**26.97**	**18.09**
Eukaryotes (polyenoics)	**6.22**	**36.22**

Physiological Status (Proteobacteria only)

Slowed Growth	**0.95**	**0.08**
Decreased Permeability	**0.09**	**0.08**

Dissolved Inorganic Carbon (DIC)

DIC Del	**-5.39**	**2,917.35**
% 13C	**1.10%**	**4.20%**

Legend:
NA = Not Analyzed NS = Not Sampled

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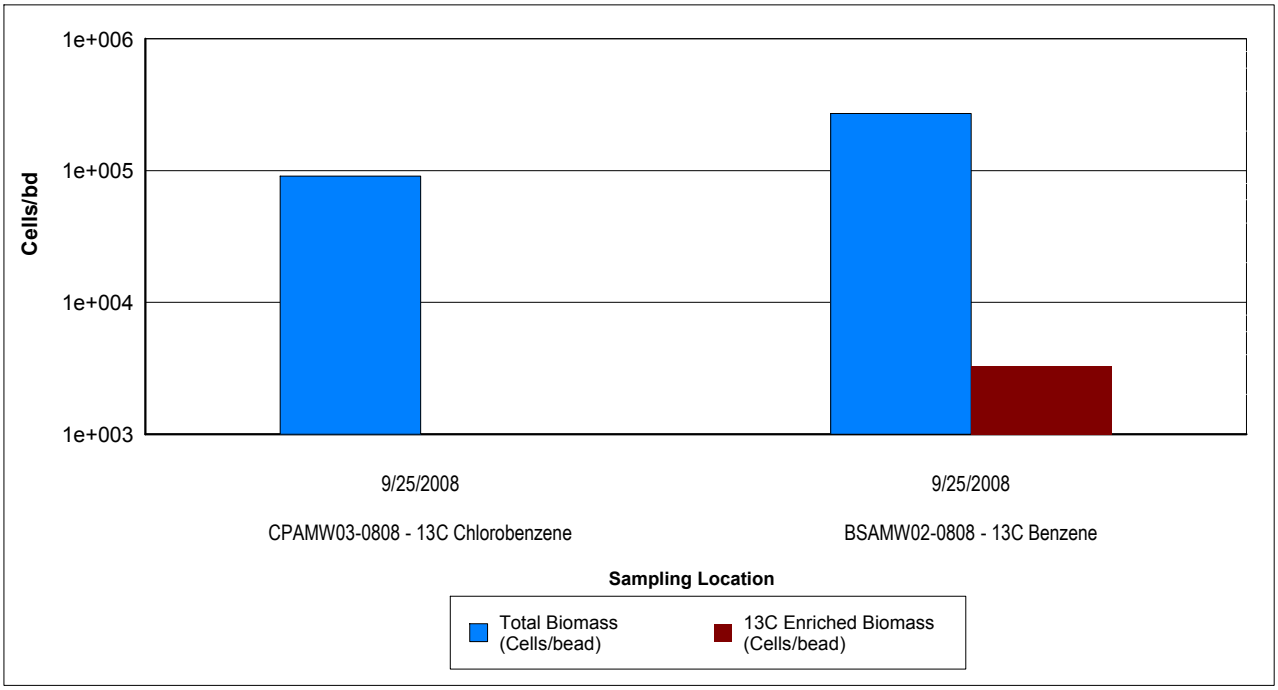

Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass (associated with higher organisms).

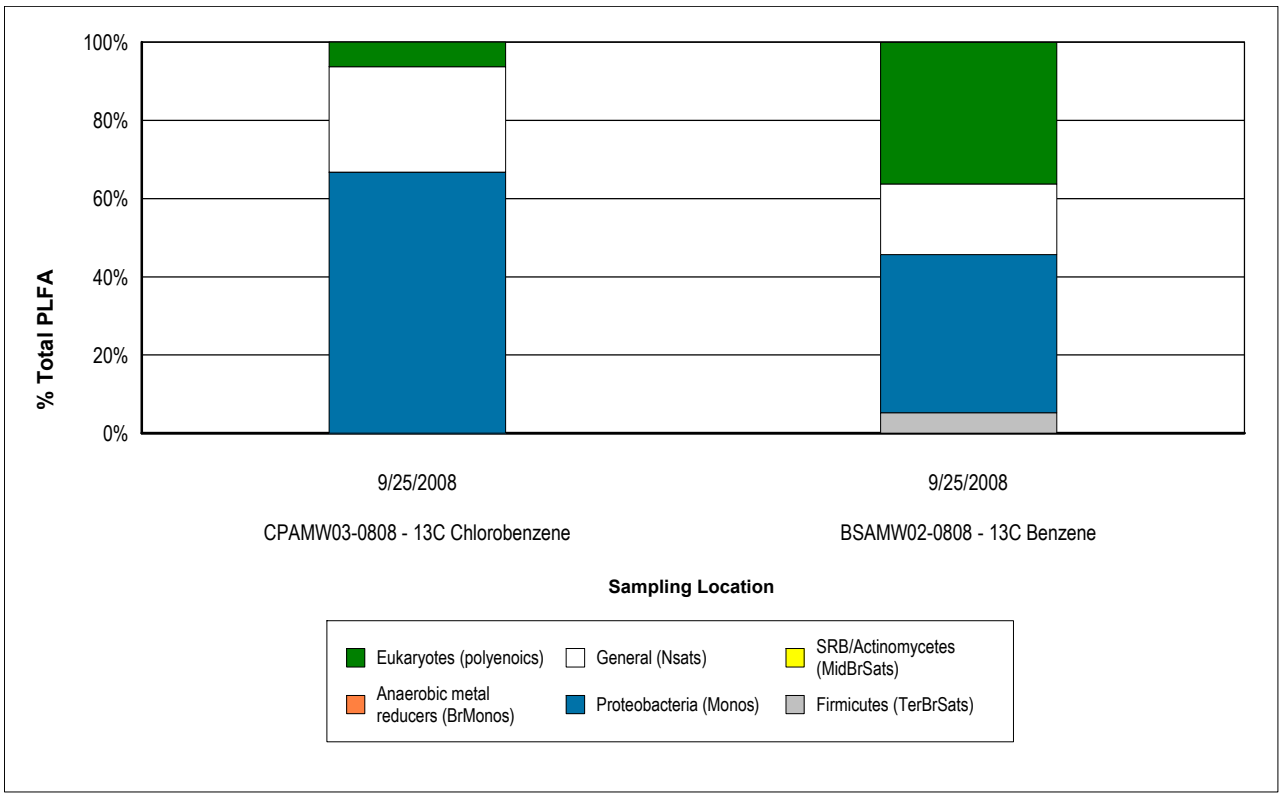

Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis.

REPORT TO:
Reports will be provided to the contact(s) listed below. Parties other than the contact(s) listed below will require prior approval.

Name: Thomas Adams
Company: URS Corporation
Address: 1001 Highlands Plaza Dr. West, Ste 300
St. Louis, MO 63110
email: thomas_adams@urscorp.com
Phone: (314) 429-0100
Fax: (314) 429-0462

Project Manager: Thomas Adams
Project Name: W.G. Krummrich Long Term Monitoring
Project No.: 21562048.00003

INVOICE TO:
For Invoices **paid by a third party** it is imperative that contact information & corresponding reference No. be provided.

Name: ← (same)
Company:
Address:
email:
Phone: ( )
Fax: ( )

Purchase Order No.
Subcontract No.

microbialinsights
2340 Stock Creek Blvd.
Rockford, TN 37853-3044
phone (865) 573-8188
fax: (865) 573-8133
email: info@microbe.com
www.microbe.com

Please Check One:
☐ More samples to follow
☒ No Additional Samples

Saturday Delivery
Please see sampling protocol for instructions

Report Type: ☒ Standard (default) ☐ Comprehensive (15% surcharge) ☐ Historical (30% surcharge)

Please contact us prior to submitting samples regarding questions about the analyses you are requesting at (865) 573-8188 (8:00 am to 4:00 pm M-F). After these hours please call (865) 300-8053.

Sample Information												CENSUS: Please select the target organism/gene																										
MI ID (Laboratory Use Only)	Sample Name	Date Sampled	Time Sampled	Matrix	PLFA	VFA	M/E/E	DGGE+3ID	DGGE+5ID			qDHC (Dehalococcoides)	DHC Functional genes	qDHB (Dehalobacter)	qDSM (Desulfuromonas)	qDSB (Desulfitobacterium)	qEBAC (Total)	qDSR (SRBs only)	qSRB/IRB	qMGN (methanogens)	qMOB (methanotrophs)	qDNF (Dentrifying)	qAOB (ammonia oxidizing)	qPM1 (MTBE aerobic)	qTOD (Intal PAHs aerobic)	qCAT (Intermediate PAHs aerobic)	qBSS (Toluen/Xylene Anaerobic)	qNAH (Napthalene aerobic)	add. qPCR:	add. qPCR:	add. qPCR:	RNA (Expression Option)*	Other: Benzene SIP	Other: Chlorobenzene SIP	Other:	Other:
057F1 1	CPAMW01-0808	9/25/08	1115		X																																
2	CPAMW02-0808		1145		X																																
3	BSAMW01-0808		1215		X																																
4,5	CPAMW03-0808		1245		X																														X		
6,7	BSAMW02-0808		1300		X																													X			
8	BSAMW03-0808		1415		X																																
9	BSAMW04-0808		1445		X																																
10	BSAMW05-0808		1500		X																																
11	CPAMW05-0808		1515		X																																
12	CPAMW04-0808	↓	1530		X																																

Relinquished by: [signature] Date: 9/25/08 1700 Received by: [signature] Date 9/26/08 1000

In order for analysis to be completed correctly, it is vital that chain of custody is filled out correctly & that all relative information is provided. Failure to provide sufficient and/or correct information regarding reporting, invoicing & analyses requested information may result in delays for which MI will not be liable. * additional cost and sample preservation are associated with RNA samples.